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	FILE 'HCAPLUS' ENTERED AT 15:49:30 ON 07 NOV 2006
L1	549006 SEA ABB=ON PLU=ON ("STRESS, BIOLOGICAL"/CV OR "STRESS,
	ANIMAL"/CV OR "STRESS, ANIMAL (L) MENTAL"/CV OR "STRESS,
	BIOLOGICAL (L) MENTAL"/CV OR "BIOL. MENTAL STRESS"/CV OR
	"EMOTIONAL STRESS (L) MENTAL"/CV OR "MENTAL BIOL. STRESS"/CV
	OR "MENTAL STRESS"/CV OR "STRESS DISORDER"/CV) OR STRESS
L2	579424 SEA ABB=ON PLU=ON ("CENTRAL NERVOUS SYSTEM"/CV OR BRAIN/CV)
	OR "NERVOUS SYSTEM (L) BRAIN"/CV OR BRAIN OR CENTRAL (W) NERVOUS
L3	392411 SEA ABB=ON PLU=ON (HORMONE/CV OR "HORMONES, ANIMAL"/CV) OR
	HORMONE
L4	44663 SEA ABB=ON PLU=ON "HEART RATE"/CV OR HEART(2A)RATE
L5	204261 SEA ABB=ON PLU=ON CIRCULATION/CV OR CIRCULATION OR "BLOOD
	PRESSURE"/CV OR BLOOD (2A) FLOW
	11111111111111111111111111111111111111
	FILE 'REGISTRY' ENTERED AT 15:58:00 ON 07 NOV 2006
	E THEANINE/CN
L6	4 SEA ABB=ON PLU=ON (THEANIN/CN OR THEANINE/CN OR "THEANINE
	HYDROCHLORIDE"/CN OR "THEANINE HYDROLASE"/CN OR "THEANINE
	SYNTHETASE"/CN)
	FILE 'HCAPLUS' ENTERED AT 15:58:34 ON 07 NOV 2006
	FILE 'REGISTRY' ENTERED AT 15:58:35 ON 07 NOV 2006
	SET SMARTSELECT ON
L7	SEL PLU=ON L6 1- CHEM : 16 TERMS
	SET SMARTSELECT OFF
	FILE 'HCAPLUS' ENTERED AT 16:12:42 ON 07 NOV 2006
L8	658 SEA ABB=ON PLU=ON L7
L9	669 SEA ABB=ON PLU=ON L8 OR ?THEANIN?
L10	,
L12	
L13	
L15	
L16	
L17	•
	D KWIC 1-5
L18	3 SEA ABB=ON PLU=ON L17 AND (?FATIGU? OR STRESS? OR TISSUE OR
	MUSCLE OR BRAIN OR HEART OR ?DERM?)
L19	83 SEA ABB=ON PLU=ON L9(L)(?DRUG? OR ?PHARM? OR ?THERP? OR
	?MEDIC? OR ?SUPPLE?)
L21	3 SEA ABB=ON PLU=ON L17 AND L18
L22	117 SEA ABB=ON PLU=ON L9(L)(?FATIGU? OR STRESS? OR TISSUE OR
T 0.3	MUSCLE OR BRAIN OR HEART OR ?DERM?)
L23	31 SEA ABB=ON PLU=ON L19 AND L22
	D STAT QUE L21
L24	D STAT QUE L21 D IBIB ABS HITSTR L21 1-3 29 SEA ABB=ON PLU=ON L23 NOT (L13 OR L21) 7 SEA ABB=ON PLU=ON "GEISS K R"/AU OR "GEISS KURT REINER"/AU 2022 SEA ABB=ON PLU=ON WEISS M?/AU
L27	7 SEA ABB=ON PLU=ON "GEISS K R"/AU OR "GEISS KURT REINER"/AU
L28	2022 SEA ABB=ON PLU=ON WEISS M?/AU  2022 SEA ABB=ON PLU=ON WEISS M?/AU
L29	182 SEA ABB=ON PLU=ON ("YAMAZAKI N"/AU OR "YAMAZAKI NAGAHIRO"/AU)
L30	182 SEA ABB=ON PLU=ON ("IAMAZARI N"/AU OR "IAMAZARI NAGAHIRO"/AU) 126 SEA ABB=ON PLU=ON ("JUNEJA L R"/AU OR "JUNEJA LECH RAJ"/AU
130	OR "JUNEJA LEK R"/AU OR "JUNEJA LEKA RAJ"/AU OR "JUNEJA
	LEKH"/AU OR "JUNEJA LEKH R"/AU OR "JUNEJA LEKH RAI"/AU OR
	"JUNEJA LEKH RAJ"/AU OR "JUNEJA LEKH RAJA"/AU)
	Common and the common

L31	136 SEA ABB=ON PLU=ON "OZEKI M"/AU OR "OZEKI MAKOTO"/AU
L32	1 SEA ABB=ON PLU=ON L27 AND L28 AND L29 AND L30 AND L31
L33	3 SEA ABB=ON PLU=ON L27 AND (L28 OR L29 OR L30 OR L31)
L34	1 SEA ABB=ON PLU=ON L28 AND (L29 OR L30 OR L31)
L35	7 SEA ABB=ON PLU=ON L29 AND (L30 OR L31)
L36	9 SEA ABB=ON PLU=ON L30 AND L31
L37	32 SEA ABB=ON PLU=ON (L27 OR L28 OR L29 OR L30 OR L31) AND L9
L38	29 SEA ABB=ON PLU=ON (L32 OR L33 OR L34 OR L35 OR L36 OR L37)
	NOT (L13 OR L21 OR L24)
	D STAT QUE L38
	D IBIB ABS HITSTR L38 1-29

#### FILE HOME

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 NOV 2006 HIGHEST RN 912537-60-1 DICTIONARY FILE UPDATES: 6 NOV 2006 HIGHEST RN 912537-60-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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#### http://www.cas.org/ONLINE/UG/regprops.html

#### FILE HCAPLUS

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FILE COVERS 1907 - 7 Nov 2006 VOL 145 ISS 20 FILE LAST UPDATED: 6 Nov 2006 (20061106/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

<sup>=&</sup>gt; fil hcaplus

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FILE COVERS 1907 - 7 Nov 2006 VOL 145 ISS 20 FILE LAST UPDATED: 6 Nov 2006 (20061106/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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	a beae que	•
L1	549006	SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRESS, BIOLOGICAL"/CV OR "STRESS, ANIMAL"/CV OR "STRESS, ANIMAL"/CV OR "BIOL. MENTAL STRESS"/CV OR "EMOTIONAL STRESS (L) MENTAL"/CV OR "MENTAL BIOL. STRESS"/CV
		OR "MENTAL STRESS"/CV OR "STRESS DISORDER"/CV) OR STRESS
L2	579424	SEA FILE=HCAPLUS ABB=ON PLU=ON ("CENTRAL NERVOUS SYSTEM"/CV OR BRAIN/CV) OR "NERVOUS SYSTEM (L) BRAIN"/CV OR BRAIN OR
		CENTRAL (W) NERVOUS
L3	392411	SEA FILE=HCAPLUS ABB=ON PLU=ON (HORMONE/CV OR "HORMONES,
	•	ANIMAL"/CV) OR HORMONE
· L4	44663	SEA FILE=HCAPLUS ABB=ON PLU=ON "HEART RATE"/CV OR HEART (2A) RA
		TE
L5	204261	SEA FILE=HCAPLUS ABB=ON PLU=ON CIRCULATION/CV OR CIRCULATION
		OR "BLOOD PRESSURE"/CV OR BLOOD(2A)FLOW
L6	4	SEA FILE=REGISTRY ABB=ON PLU=ON (THEANIN/CN OR THEANINE/CN
	_	OR "THEANINE HYDROCHLORIDE"/CN OR "THEANINE HYDROLASE"/CN OR
		"THEANINE SYNTHETASE"/CN)
L7		SEL PLU=ON L6 1- CHEM: 16 TERMS
L8	650	
		SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L9		SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?THEANIN?
L10	97	SEA FILE=HCAPLUS ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5)
		AND L9
L12	66	SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND PD= <november 2003<="" 30,="" td=""></november>
L13	12	SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND ?STRESS?

=> d ibib abs hitstr l13 1-12

L13 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:1005411 HCAPLUS Full-text

DOCUMENT NUMBER:

140:92694

TITLE:

Trends in developing dietary supplements targeting

antistress

AUTHOR (S):

Iwata, Yutaka

CORPORATE SOURCE:

Res. Lab., Nippon Menard Cosmetic Co., Ltd., Nagoya,

451-0071, Japan

SOURCE:

Fragrance Journal (2003), 31(12), 92-96

CODEN: FUJAD7; ISSN: 0288-9803

PUBLISHER: DOCUMENT TYPE:

Furequransu Janaru Sha Journal; General Review

LANGUAGE:

Japanese

AB A review on anti-stress ingredients used for health food, including L-theanine used for food additive, extract of Acanthopanax senticosus, St.-John's-wort, valerian, and passionflower.

L13 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:875104 HCAPLUS Full-text

DOCUMENT NUMBER:

139:341792

TITLE:

Stress inhibition composition,

theanine-containing granule and process for

producing the same

INVENTOR(S):

Okayama, Kenichi

PATENT ASSIGNEE(S):

Otsuka Chemical Holdings Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 19 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.			KIND DATE			APPLICATION NO.						DATE					
	WO	2003	 0907	- <b></b> - 38		A1	A1 20031106		,	WO 2003-JP5240				20030424 <				
		W:	AE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CŹ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,	LS,
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	PH,
			PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
			UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					•	
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
			FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	JP	2003	3213	55		A2		2003	1111		JP 2	002-	1241	01		2	0204	425 <
	ΑU	2003	2351	14		A1		2003	1110	Ī	AU 2	003-	2351	14		2	00304	124 <
PRIO	RITY	APP	LN.	INFO	. :						JP 2	002-	1241	01	7	A 2	00204	125
										1	NO 2	003-	JP52	40	1	W 2	00304	124
ΔR	T+	ic a	nri	mary	agr	ect	to r	rowi	de a	etr	.ecc	inhi	hiti	on c	Omno	ei+i	on w	hoce

AB It is a primary aspect to provide a stress inhibition composition whose adverse influence on health, even if frequently administered, is scarce and which is excellent in stress inhibition effects. It is a secondary aspect to obtain, even when a specified stress inhibition component is employed as an active ingredient, granules of properties ensuring suitable use in a process for producing the above stress inhibition composition and further to efficiently produce the granules. According to the primary aspect, there is provided a stress inhibition composition characterized by containing theanine . According to the secondary aspect, there is provided a process for

producing theanine-containing granules wherein theanine reduced to particles and saccharides reduced to particles while causing them to flow are formed into granules whose theanine content is 10 weight% or higher, characterized in that of the theanine particles, portion left on a 60-mesh sieve is 20 weight% or more, preferably 50 weight% or more. Granules were prepared from theanine 12.6, trehalose 16, and beat sugar balance to 100 %. The granules showed excellent tableting property.

IT 3081-61-6, Theanine

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stress inhibition composition containing theanine-containing granule, and process for producing same)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:133061 HCAPLUS Full-text

DOCUMENT NUMBER:

138:175880

TITLE:

Formulation containing (lyso-) phosphatidylserine for

the prevention and treatment of stress

states in warm-blooded animals

INVENTOR(S):

Jaeger, Ralf; Boekenkamp, Dirk

PATENT ASSIGNEE(S):

Degussa Bioactives G.m.b.H. & Co. K.-G., Germany

SOURCE:

PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAS	CENT 1	NO.			KIND DATE		i	APPLICATION NO.					DATE				
						-											
WO 2003013549				A2	:	2003	0220	Ţ	WO 2	002-1	EP894	40		20020809 <			
WO	2003	01354	19		A3 20031106												
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW.,	AM,	ΑZ,	BY,
		KG,	ΚZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,
		CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG			
DE	1013	9250			<b>A1</b>	:	20030227			DE 2001-10139250					20010809 <		
DE	1023	5760			A1	:	2003	0306	1	DE 20	002-3	1023	5760		20	0208	305 <

EP	1414469		A2	20040506	EP 2002-754989	•	20020809
	R: AT,	BE, CH,	DE,	DK, ES, FR,	GB, GR, IT, LI, LU,	NL,	SE, MC, PT,
	IE,	SI, LT,	LV,	FI, RO, MK,	CY, AL, TR, BG, CZ,	EE,	SK '
BR	20020118	14	Α	20040908	BR 2002-11814		20020809
JP	20045375	77	T2	20041216	JP 2003-518556		20020809
CN	1625406		Α	20050608	CN 2002-816961		20020809
NZ	530981		Α	20060630	NZ 2002-530981		20020809
ZA	20040008	30	Α	20040921	ZA 2004-830		20040202
US	20042345	44	A1	20041125	US 2004-486314		20040206
PRIORIT	Y APPLN.	INFO.:			DE 2001-10139250	Α	20010809
					DE 2002-10235760	A	20020805
					WO 2002-EP8940	W	20020809

AB The invention relates to a formulation containing phosphatidylserine (PS) and/or lyso-phosphatidylserine for the prevention and treatment of mental and phys. stress states. The phosphatidylserine is combined inter alia with vegetable exts. According to the invention, daily doses range from 50 -1000 mg PS, administered over a maximum period of six months. Preferred subjects are human beings of 10-50 yr of age.

IT 3081-61-6, Theanine

> RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (formulation containing (lyso-) phosphatidylserine for prevention and treatment of stress in warm-blooded animals)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L13 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:40112 HCAPLUS Full-text

DOCUMENT NUMBER:

138:72301

TITLE:

Protein-herb-based food composition offering

stress relaxation to mammals

INVENTOR (S):

Fischer, Christa Maria; Weber, Regina Brigitte

applied in

The Procter & Gamble Company, USA

PATENT ASSIGNEE(S): SOURCE:

Eur. Pat. Appl., 8 pp. CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	ENT	NO.			KIN	D :	DATE			APPL	ICAT:	ION	NO.		D	ATE		
						-												
ΕP	1275	308			A1	:	2003	0115	;	EP 2	001-	1170	90		20	0010	713	<
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR							
WO	2003	0058										US22	028		2	0020	711	<
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	CZ,	DE,	DE,	DK,	DK,	DM,	DZ,	EC,	EE,	EE,	ES,	
		FI,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,

SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW,

AM, AZ, BY, KG

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,

CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,

NE, SN, TD, TG

PRIORITY APPLN. INFO.:

EP 2001-117090 A 20010713

AB The present invention provides a food composition, preferably for use as a beverage or other liquid food, which delivers a stress-alleviating effect to mammals, especially humans. The active ingredients of this composition are protein fractions and herbal exts.

3081-61-6, Theanine ΙT

> RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protein-herb-based food composition offering stress relaxation to mammals)

3081-61-6 HCAPLUS RN

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

PATENT ASSIGNEE(S):

2002:832506 HCAPLUS Full-text

DOCUMENT NUMBER:

137:320327

TITLE:

Method for measuring the effect of antistress

agents using bicycle ergometry

INVENTOR(S):

Geiss, Kurt-Reiner; Weiss, Michael; Falke, Wolfgang Isme Privates Forschungsinstitut Fuer Sport, Medizin &

Ernaehrung Gmbh, Germany

SOURCE:

Ger. Offen., 5 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10140653	A1	20021031	DE 2001-10140653	20010824 <
DE 10140653	C2	20030918		

PRIORITY APPLN. INFO.:

DE 2001-10120178 A1 20010424

The invention concerns the bicycle ergometric method for measuring the effect of L-theanine after the stress and during the relaxation period. 50-200 Mg of L-theanine doses are administered in form of beverages, dragees, capsules or effervescent tablets; blood and urine are analyzed; EEGs, skin resistance and blood pressure are taken.

IT 3081-61-6, L-Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for measuring the effect of antistress agents using

bicycle ergometry)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2001:77544 HCAPLUS Full-text

DOCUMENT NUMBER:

134:261209

TITLE:

Inhibitory effect of green tea tannin on free

radical-induced injury to the renal epithelial cell

line, LLC-PK1

AUTHOR (S):

Yokozawa, Takako; Cho, Eun Ju; Nakagawa, Takako;

Terasawa, Katsutoshi; Takeuchi, Shigeya

CORPORATE SOURCE:

Institute of Natural Medicine, Toyama Medical and Pharmaceutical University, Toyama, 930-0194, Japan

SOURCE:

Pharmacy and Pharmacology Communications (2000

), 6(12), 521-526

CODEN: PPCOFN; ISSN: 1460-8081

PUBLISHER:

Royal Pharmaceutical Society of Great Britain

DOCUMENT TYPE: LANGUAGE: Journal English

Green tea is an antioxidant with radical-scavenging activity. To investigate AB these properties we examined the effect of green tea tannin on the viability of renal epithelial LLC-PK1 cells treated with 3-morpholinosydnonimine (SIN-1), sodium nitroprusside or pyrogallol. SIN-1 treatment significantly decreased cell viability, while a mixture of tannin and SIN-1 led to a recovery of viability from the cellular damage induced by free radicals generated by SIN-1. Moreover, (-)-epigallocatechin 3-O-gallate (EGCg) and (-)-epigallocatechin (EGC), the main components of tannin, produced higher activity than tannin alone. Caffeine and theanine, also components of green tea, did not show activity. However, tannin did not protect the cell against nitric oxide (NO) or superoxide anion (O2-) (produced by sodium nitroprusside and pyrogallol, resp.). This result suggests that green tea tannin protects LLC-PK1 cells from oxidative stress caused by free radicals generated by SIN-1, but not from stress induced by either NO or O2-. Moreover, the radical scavenging activity of green tea is mainly attributable to tannin and its components, EGCg and EGC.

REFERENCE COUNT:

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:637402 HCAPLUS Full-text

DOCUMENT NUMBER:

134:365822

TITLE: L-theanine-a unique amino acid of

green tea and its relaxation effect in humans.

[Erratum to document cited in CA132:165251]

AUTHOR(S): Juneja, L. R.; Chu, D.-C.; Okubo, T.; Nagato, Y.;

Yokogoshi, H.

CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd.,

Yokkaichi, Mie, 510-0844, Japan

SOURCE: Trends in Food Science & Technology (2000),

Volume Date 1999, 10(12), 425 CODEN: TFTEEH; ISSN: 0924-2244

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB The corrected version of Fig. 6 is given.

IT 3081-61-6, L-Theanine

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological

study); OCCU (Occurrence)

(L-theanine as unique amino acid of green tea and

its relaxation effect in humans (Erratum))

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L13 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:806421 HCAPLUS Full-text

DOCUMENT NUMBER: 132:165251

TITLE: L-theanine - a unique amino acid

of green tea and its relaxation effect in humans

AUTHOR(S): Juneja, L. R.; Chu, D.-C.; Okubo, T.; Nagato, Y.;

Yokogoshi, H.

CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co., Ltd.,

Yokkaichi, Mie, Japan

SOURCE: Trends in Food Science & Technology (1999),

10(6-7), 199-204

CODEN: TFTEEH; ISSN: 0924-2244

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

As a review with 21 refs. Since ancient times, it has been said that drinking green tea brings relaxation. The substance that is responsible for a sense of relaxation is theanine. Theanine is a unique amino acid found almost solely in tea plants and the main component responsible for the exotic taste of green tea. It was found that L-theanine administered i.p. to rats reached the brain within 30 min without any metabolic change. Theanine also acts as a neurotransmitter in the brain and decreases blood pressure significantly in hypertensive rats. In general, animals always generate very weak elec. pulses on the surface of the brain, called brain waves. Brain waves are classified into four types, namely  $\alpha$ ,  $\beta$ ,  $\delta$  and  $\theta$ -waves, based on mental conditions.

Generation of  $\alpha$ -waves is considered to be an index of relaxation. In human volunteers,  $\alpha$ -waves were generated on the occipital and parietal regions of the brain surface within 40 min after the oral administration of theanine (50-200 mg), signifying relaxation without causing drowsiness. With the successful industrial production of L- theanine, we are now able to supply Suntheanine (trade name of L-theanine) which offers a tremendous opportunity for designing foods and medical foods targeting relaxation and the reduction of stress. Taiyo Kagaku Co., Ltd, Japan won the 1998 'Food Ingredient Research Award' for development of Suntheanine at Food Ingredients in Europe (Frankfurt). The judges felt it was a particularly well-documented and fascinating piece of research.

IT 3081-61-6, L-Theanine

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(L-theanine, a unique amino acid of green tea and its relaxation effect in humans)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:325254 HCAPLUS Full-text

DOCUMENT NUMBER:

129:27273

TITLE:

In Vitro and in Vivo Studies on the Radical-Scavenging

Activity of Tea

AUTHOR(S):

Yokozawa, Takako; Dong, Erbo; Nakagawa, Takako;

Kashiwagi, Hiroshi; Nakagawa, Hitomi; Takeuchi,

Shigeya; Chung, Hae Young

CORPORATE SOURCE:

Research Institute for Wakan-Yaku, Toyama Medical and

Pharmaceutical University, Sugitani, 930-01, Japan Journal of Agricultural and Food Chemistry (

1998), 46(6), 2143-2150

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER:

SOURCE:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The effects of tea (Camellia sinensis L.) of three types on excessive free radicals were examined utilizing spin trapping, 1,1-diphenyl-2- picrylhydrazyl radical, lipid peroxidn., and lactate dehydrogenase leakage from cultured cells. Green tea extract presented significant antiradical effects in these four assay systems, whereas oolong tea and black tea exts. showed a rather weak protective effect against free radicals. A more potent scavenger effect using cultured cells was found with a green tea tannin mixture Similarly to the effects of the green tea tannin mixture, (-)-epigallocatechin 3-O-gallate,

its main ingredient, had an inhibitory effect on oxidative stress-induced apoptosis. The activities of the antioxidn. enzymes in rats after subtotal

nephrectomy were increased, suggesting a protective action against oxidative stress. The increased levels of uremic toxins in the blood were also reduced in rats given (-)-epigallocatechin 3-O-gallate. These findings indicate that (-)-epigallocatechin 3-O-gallate helps to inhibit the progression of renal failure by scavenging radicals.

TT 3081-61-6, Theanine

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(in vitro and in vivo studies on the radical-scavenging activity of tea)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN 1997:100062 HCAPLUS Full-text

ACCESSION NUMBER:

DOCUMENT NUMBER: 126:211308

TITLE: Inhibitory effect of green tea on injury to a cultured

renal epithelial cell line, LLC-PK1

AUTHOR (S): Yokozawa, Takako; Dong, Erbo; Chung, Hae Young; Oura,

Hikokichi; Nakagawa, Hitomi

CORPORATE SOURCE: Research Institute for Wakan-Yaku, Toyama Medical and

Pharmaceutical University, Toyama, 930-01, Japan

SOURCE: Bioscience, Biotechnology, and Biochemistry (

1997), 61(1), 204-206

CODEN: BBBIEJ; ISSN: 0916-8451

PUBLISHER: Japan Society for Bioscience, Biotechnology, and

Agrochemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

When cells from a cultured renal epithelial cell line, LLC-PK1, were cultured under hypoxic conditions (oxygen concentration of 2% or less) before reoxygenation was applied (95% air, 5% CO2), the leakage of lactate. dehydrogenase (LDH) into the medium increased. This phenomenon was inhibited in the presence of DMSO, a hydroxyl radical scavenger, suggesting the involvement of free radicals. Such oxidative stress was significantly inhibited by a green tea extract, and more potently by a tannin mixture On the other hand, under ordinary culture conditions (95% air, 5% CO2), there was cell injury, although the LDH leakage was less than that under hypoxia/reoxygenation, and such injury was inhibited by the green tea extract and the tannin mixture

3081-61-6, Theanine IT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(inhibitory effect of green tea on injury to renal epithelial cell line)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:33503 HCAPLUS Full-text

DOCUMENT NUMBER:

126:129283

TITLE:

Quantitative estimation of physiological functions of various roots with different diameters in the root

system of the tea tree

AUTHOR (S):

Okano, Kunio; Omae, Hide

CORPORATE SOURCE:

Natl. Res. Inst. Veg., Ornamental Plants Tea,

Shizuoka, 428, Japan

SOURCE:

Nippon Sakumotsu Gakkai Kiji (1996), 65(4),

605-611

CODEN: NISAAJ; ISSN: 0011-1848

PUBLISHER:

Nippon Sakumotsu Gakkai

DOCUMENT TYPE:

Journal

LANGUAGE:

Japanese

The root system of the tea (Camellia sinensis L.) tree consists of various types of roots with different diams. or ages. In order to control the growth of the root system, it is necessary to know the physiol. functions of various types of roots within a root system quant. Tea trees, 2 yr after transplanting, were dug out from the field at the bud break stage of the 1st flush, then the roots were classified into 4 groups according to their diameter Top/root ratio of the examined trees was around 1.5. Dry weight ratios of white rootlet (diameter <1.0 mm), brown rootlet (1.0-2.0 mm), medium root I (2.0-5.0 mm) and medium root II (>5.0 mm) in root systems were 30%, 10%, 15%, and 45%, resp. Rates of respiration and nitrogen uptake per unit dry weight were higher in the younger rootlets, while the content of total available carbohydrate (TAC) was higher in the lignified thick roots. Quant., 75% of the respiration and 90% of nitrogen uptake in the root system was conducted by the rootlets less than 2.0 mm in diameter Contribution of the white rootlets to the total nutrient uptake of the root system was especially large. On the other hand, 84% of TAC in the root system was localized in the lignified roots more than 2.0 mm in diameter A higher level of theanine, a main palatable substance of tea, was detected in the white rootlet as compared to the lignified roots, indicating that the formation of this substance occurred in the newly developing roots. In the lignified roots, a large amount of arginine accumulated instead of theanine. From these results, idiotype of the root system in the tea tree was considered to be different according to the purpose of tea cultivation. A root system with higher proportion of rootlets would be desirable for increasing the yield and quality of the leaves. On the contrary, existence of well-developed lignified roots would be necessary for tolerating environmental stresses.

IT 3081-61-6, Theanine

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological

study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC
(Process)

(study of physiol. function of various roots for ideal tea cultivation)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L13 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1994:525260 HCAPLUS Full-text

DOCUMENT NUMBER:

121:125260

TITLE:

Antistress agents containing L-

theanine

INVENTOR(S):

Fujii, Wataru; Suwa, Yoshihide; Nagai, Hajime; Inui,

Takako

PATENT ASSIGNEE(S):

Suntory Ltd, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06100442	A2	19940412	JP 1992-248247	19920917 <
JP 2904655	B2	19990614		

PRIORITY APPLN. INFO.:

JP 1992-248247 1992091

AB Antistress agents containing L-theanine (I) as an active ingredient are claimed. The antistress agents are useful as prophylactic and therapeutic agents for mental and phys. disorders induced by stress. Pretreatment of rats with 2 g/kg p.o. I reduced isoproterenol-induced increase of heart rate from 504 count /min to 456 count/min (434 count/min for an untreated control). A beverage (100 mL/bottle) was prepared from an aqueous solution containing I 20 g, Na DL-tartrate 0.1 g, succinic acid 9 mg, syrup 800 g, citric acid 12 g, vitamin C 10 g, flavor 15 mL, KOH 1 g, and MgSO4 0.5 g in 10 L.

IT 3081-61-6, L-Theanine

RL: BIOL (Biological study)

(stress inhibitors containing, as catecholamine antagonist)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

=> =	> d stat qu	e 121
L1	549006	SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRESS, BIOLOGICAL"/CV OR
	•	"STRESS, ANIMAL"/CV OR "STRESS, ANIMAL (L) MENTAL"/CV OR
		"STRESS, BIOLOGICAL (L) MENTAL"/CV OR "BIOL. MENTAL STRESS"/CV
		OR "EMOTIONAL STRESS (L) MENTAL"/CV OR "MENTAL BIOL. STRESS"/CV
		OR "MENTAL STRESS"/CV OR "STRESS DISORDER"/CV) OR STRESS
L2	579424	SEA FILE=HCAPLUS ABB=ON PLU=ON ("CENTRAL NERVOUS SYSTEM"/CV
•		OR BRAIN/CV) OR "NERVOUS SYSTEM (L) BRAIN"/CV OR BRAIN OR
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		ANIMAL"/CV) OR HORMONE
L4	44663	SEA FILE=HCAPLUS ABB=ON PLU=ON "HEART RATE"/CV OR HEART (2A) RA
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L5	204261	SEA FILE=HCAPLUS ABB=ON PLU=ON CIRCULATION/CV OR CIRCULATION
		OR "BLOOD PRESSURE"/CV OR BLOOD(2A) FLOW
L6	4	SEA FILE=REGISTRY ABB=ON PLU=ON (THEANIN/CN OR THEANINE/CN
		OR "THEANINE HYDROCHLORIDE"/CN OR "THEANINE HYDROLASE"/CN OR
		"THEANINE SYNTHETASE"/CN)
L7		SEL PLU=ON L6 1- CHEM : . 16 TERMS
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L12	66	SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND PD= <november 2003<="" 30,="" td=""></november>
L13		SEA FILE=HCAPLUS ABB=ON PLU=ON. L12 AND ?STRESS?
L15		SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND RECOVER?
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L17	12	SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND PD= <november 2003<="" 30,="" td=""></november>
L18	2	CEA ELLE-UCADING ADD ON DIN ON 117 AND (STATISTICS OF CERTICALS
пто	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (?FATIGU? OR STRESS? OR TISSUE OR MUSCLE OR BRAIN OR HEART OR ?DERM?)
L21	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18
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L21 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:674578 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 137:206557

TITLE: Compositions for enhancing muscle

tissue recovery and repair

INVENTOR(S): Bucci, Luke R.; Shugarman, Alan; Felliciano, Jeffrey

A.; Draper, Rodriguez Marta

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
UŚ 2002122835	A1	20020905	US 2001-795973	20010301 <

PRIORITY APPLN. INFO.:

US 2001-795973

20010301

AB Compns. comprising zinc, magnesium and vitamin B6 and optionally theanine are effective for enhancing muscle and tissue recovery during sleep, following intense phys. exercise.

IT 3081-61-6, Theanine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for enhancing muscle tissue

recovery and repair)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L21 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:496296 HCAPLUS Full-text

DOCUMENT NUMBER:

135:76199

TITLE:

Nutritious agents, foods, and beverages

INVENTOR(S):

Kakuta, Takami; Nozawa, Ayumi; Sagesaka, Hiroko;

Tsukamoto, Shojiro

PATENT ASSIGNEE(S):

Itoen Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001187736	A2	20010710	JP 2000-35345	20000214 <
JP 2006077027	A2	20060323	JP 2005-338782	20051124
PRIORITY APPLN. INFO.:			JP 1999-297943 A	19991020
			JP 2000-35345 A3	20000214

AB The agents, foods, and beverages contain mixts. of caffeine, theanine, and arginine as effective ingredients. The agents, foods, and beverages containing the tea extract components above are useful for prevention of and recovery from fatigue.

IT 3081-61-6, Theanine

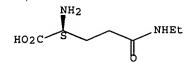
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nutritious foods and beverages containing caffeine, theanine, and arginine for fatigue prevention)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L21 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1971:985 HCAPLUS Full-text

DOCUMENT NUMBER:

74:985

TITLE:

Changes in the composition of the xylem exudate of tea

plants (Camellia sinensis) during recovery

from pruning

AUTHOR (S):

Selvendran, R. R.

CORPORATE SOURCE:

Tea Res. Inst., Talawakelle, Sri Lanka

SOURCE:

Annals of Botany (Oxford, United Kingdom) (

1970), 34(137), 825-33

CODEN: ANBOA4; ISSN: 0305-7364

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Cultural practices included pruning tea shrubs in which all side branches were removed (clean) or a few side branches with their leaves were left (lung). Of the amino N found in the sap, ≤90% was in glutamine, theanine, glutamic acid, aspartic acid, and lysine. Small amts. of leucine + isoleucine, phenylalanine, valine, and asparagine were found, with very little NH4- and no NO3-. PO43-, SO42-, glucose, fructose, and sucrose were also present. Phosphorylcholine was not detected. The total amino acid content decreased to a very low level 9 days after pruning and increased at bud break 2-3 weeks later. Glutamine and theanine remained predominant, and the increases in the other constituents followed parallel courses. It appeared that the need for nutrients for new growth at and after bud break was met by mobilization of reserves. Exudation from lung-pruned plants was at a greater rate than from clean-pruned plants.

=> => d stat que 124 1-29 '1-29' IS NOT VALID HERE

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L1 549006 SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRESS, BIOLOGICAL"/CV OR
"STRESS, ANIMAL"/CV OR "STRESS, ANIMAL (L) MENTAL"/CV OR
"STRESS, BIOLOGICAL (L) MENTAL"/CV OR "BIOL. MENTAL STRESS"/CV
OR "EMOTIONAL STRESS (L) MENTAL"/CV OR "MENTAL BIOL. STRESS"/CV
OR "MENTAL STRESS"/CV OR "STRESS DISORDER"/CV) OR STRESS

L2 579424 SEA FILE=HCAPLUS ABB=ON PLU=ON ("CENTRAL NERVOUS SYSTEM"/CV OR BRAIN/CV) OR "NERVOUS SYSTEM (L) BRAIN"/CV OR BRAIN OR CENTRAL (W) NERVOUS

L3 392411 SEA FILE=HCAPLUS ABB=ON PLU=ON (HORMONE/CV OR "HORMONES, ANIMAL"/CV) OR HORMONE

L4 44663 SEA FILE=HCAPLUS ABB=ON PLU=ON "HEART RATE"/CV OR HEART(2A)RA

L5 204261 SEA FILE=HCAPLUS ABB=ON PLU=ON CIRCULATION/CV OR CIRCULATION OR "BLOOD PRESSURE"/CV OR BLOOD(2A) FLOW

L6 4 SEA FILE=REGISTRY ABB=ON PLU=ON (THEANIN/CN OR THEANINE/CN OR "THEANINE HYDROCHLORIDE"/CN OR "THEANINE HYDROCLASE"/CN OR

		"THEANINE SYNTHETASE"/CN)
L7		SEL PLU=ON L6 1- CHEM: 16 TERMS
L8	658	SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L9	669	SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?THEANIN?
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L17	12	SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND PD= <november 2003<="" 30,="" td=""></november>
		·
L18	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (?FATIGU? OR STRESS?
		OR TISSUE OR MUSCLE OR BRAIN OR HEART OR ?DERM?)
L19	83	SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L) (?DRUG? OR ?PHARM? OR
		?THERP? OR ?MEDIC? OR ?SUPPLE?)
L21	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18
L22	117	SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)(?FATIGU? OR STRESS? OR
		TISSUE OR MUSCLE OR BRAIN OR HEART OR ?DERM?)
L23	31	SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L22
L24	29	SEA FILE=HCAPLUS ABB=ON PLU=ON L23 NOT (L13 OR L21)
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=> d ibib abs hitstr 124 1-29

L24 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2006:1029398 HCAPLUS Full-text

DOCUMENT NUMBER: 145:355582

TITLE: Health food and the dermatitis /eczema preventer

INVENTOR(S): Ueda, Shoji

PATENT ASSIGNEE(S): Ueda Holding Co., Ltd., Japan; UES K. K.

SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006262768	A2	20061005	JP 2005-85238	20050324
PRIORITY APPLN. INFO.:			JP 2005-85238	20050324
AD mbs descention server		- L1-1		

The invention provides the health food and dermatitis/eczema preventer containing fermented coconut water with lactic acid bacteria from coconut sap. The health foods contain one or more of the following additives including sugar, alc., saturated fatty acids, unsatd. fatty acids, vitamins, trace elements, amino acids, neurotransmitters, stimulator, blood flow stimulator from plant exts. and chemical compds. The health foods contain one or more of phosphatidylethanolamines, phosphatidylinositols, taurine, serine, carnitine, phenylalanine, melatonin, tyrosine, theanine, ethanol, creatine citrate, creatine pyruvate, barbituric acid, ginseng, Schisandra fruit, Suma, chamomile, weeping willow, Ephedra, Passifloraceae, Piper methysticum, Hypericaceae, Valeriana, garlic and Guarana. The health foods are in the

forms of powders, tablets, drinks and capsules. The health foods may also contain one or more of pharmaceutical aids such as Me cellulose, carbohydrates, SiO2, stearate, solubilizing agents, dyes, flavoring agents, preservatives, separating agents and lubricants. The health foods can be used on the surface of the skin as the dermatitis/eczema preventer.

IT 3081-61-6, Theanine

> RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (health foods and dermatitis /eczema inhibitors containing active components of fermented coconut water with lactic acid bacteria)

3081-61-6 HCAPLUS RN

L-Glutamine, N-ethyl- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L24 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:1012676 HCAPLUS Full-text

DOCUMENT NUMBER:

145:363633

TITLE:

SOURCE:

Compositions comprising theanine and/or dipeptide for

improving tic disorders

INVENTOR(S):

Ozeki, Makoto

PATENT ASSIGNEE (S):

Taiyokagaku Co., Ltd., Japan U.S. Pat. Appl. Publ., 10pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
				·	
US 2006217321	<b>A1</b>	20060928	US 2006-387448	20060323	
JP 2006265177	A2	20061005	JP 2005-86030	20050324	
PRIORITY APPLN. INFO.:			JP 2005-86030 A	20050324	

AB Tic disorders can be improved by administering theanine, an amino acid that crosses the blood-brain barrier, or a dipeptide consisting of theanine and a different amino acid. In addition, these compns. can be added to foods and drinks or pharmaceuticals . Thus, 0.3M glutamine and 1.5M ethylamine hydrochloride in boric acid buffer were reacted in the presence of 0.3 U glutaminase at 30° for 22 h to give 225 nmol of L-theanine. Tablets were prepared containing theanine 13.33, trehalose 10, sucrose fatty acid ester 1, flavoring 4, and frost sugar 71.67%, resp. A 12 years old patient with tic disorder received 10 theanine tablets (1 g theanine) daily for 20 days. symptoms of tic disorders have completely disappeared. Meanwhile, there were no adverse effects specially noted for theanine.

L24 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 2006:907352 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 145:342382

TITLE: Health food and pharmaceutical compositions

containing theanine and taurine and other Chinese medicines for improving memory and

relieving fatigue

INVENTOR(S): Fan, Xiaobing; Sha, Danian; Hang, Xiaomin; Han, Chao;

Zhang, Di; Gao, Xiaodie

PATENT ASSIGNEE(S): Shanghai Jiao Da Onlly Co., Ltd., Peop. Rep. China SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent Chinese

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

•				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1824085	A	20060830	CN 2005-10111887	20051223

PRIORITY APPLN. INFO.: CN 2005-10111887 The health-care food comprises soya phospholipid 20-30 parts, extract of Pueraria lobata root 15-25 parts, extract of grape seeds 8-15 parts, paeonia lactiflora extract 8-15 parts, taurine 8-15 parts and theanine 5-15 parts.

The product is used to treat chronic fatigue syndrome.

IT 3081-61-6, Theanine

> RL: FFD (Food or feed use); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(health food and pharmaceutical compns. containing theanine and taurine and other Chinese medicines for

improving memory and relieving fatigue)

RN3081-61-6 HCAPLUS

L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

CORPORATE SOURCE:

L24 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:898897 HCAPLUS Full-text

TITLE: Pu-erh tea supplementation suppresses fatty acid

synthase expression in the rat liver through

downregulating Akt and JNK signalings as demonstrated

in human hepatoma HepG2 cells

AUTHOR (S): Chiang, Chun-Te; Weng, Meng-Shih; Lin-Shiau, Shoei-Yn;

Kuo, Kuan-Li; Tsai, Yao-Jen; Lin, Jen-Kun

Institute of Biochemistry and Molecular Biology, College of Medicine National Taiwan University,

Taipei, Taiwan

SOURCE: Oncology Research (2006), 16(3), 119-128

CODEN: ONREE8; ISSN: 0965-0407

Cognizant Communication Corp. PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

Fatty acid synthase (FAS) is a key enzyme of lipogenesis. Overexpression of AB FAS is dominant in cancer cells and proliferative tissues. The expression of FAS in the livers of rats fed pu-erh tea leaves was significantly suppressed. The gains in body weight, levels of triacylglycerol, and total cholesterol were also suppressed in the tea-treated rats. FAS expression in hepatoma HepG2 cells was suppressed by the exts. of pu-erh tea at both the protein and mRNA levels. FAS expression in HepG2 cells was strongly inhibited by PI3K inhibitor LY294002 and JNK inhibitor II and slightly inhibited by p38 inhibitor SB203580 and MEK inhibitor PD98059, sep. Based on these findings, we suggest that the suppression of FAS in the livers of rats fed pu-erh tea leaves may occur through downregulation of the PI3K/AKt and JNK signaling pathways. The major components of tea that have been demonstrated to be responsible for the antiobesity and hypolipidemic effects are catechins, caffeine, and theanine. The compns. of catechins, caffeine, and theanine varied dramatically in pu-erh, black, oolong, and green teas. The active principles and mol. mechanisms that exerted these biol. effects in pu-erh tea deserve future exploration.

IT INDEXING IN PROGRESS

IT 3081-61-6, Theanine

RL: BSU (Biological study, unclassified); BIOL (Biological study) (pu-erh tea supplementation suppresses fatty acid synthase expression in rat liver through downregulating Akt and JNK signalings as demonstrated in human hepatoma HepG2 cells)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

PATENT ASSIGNEE(S):

2006:191860 HCAPLUS Full-text

DOCUMENT NUMBER:

144:260818

TITLE:

SOURCE:

Composition for repressing transforming growth factor

beta

INVENTOR(S):

Ozeki, Makoto; Aoi, Nobuyuki Taiyokagaku Co., Ltd., Japan U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
US 2006045905	A1	20060302	US 2005-209126	20050822			
JP 2006063003	A2	20060309	JP 2004-245916	20040825			
PRIORITY APPLN. INFO.:			JP 2004-245916 A	20040825			

AB A composition for repressing transforming growth factor  $\beta$  contains theanine as an active substance. The composition is useful for preventing or treating chronic glomerulonephritis, renal interstitial fibrosis, hepatic fibrosis, hepatic cirrhosis, idiopathic interstitial pneumonia, keloid, hidebound disease, arterial sclerosis, myocardial infarction, cardiac fibrosis, restenosis, acute megakaryoblastic leukemia, adult T-cell leukemia, chronic fatigue syndrome or ordinary fatigue.

L24 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER:

2005:1300005 HCAPLUS Full-text

DOCUMENT NUMBER:

144:142987

TITLE:

Efficacy of theanine is connected with

theanine metabolism by any enzyme, not only

drug metabolizing enzymes

AUTHOR (S):

Sadzuka, Yasuyuki; Sugiyama, Tomomi; Nagamine, Makiko;

Umegaki, Keizo; Sonobe, Takashi

CORPORATE SOURCE:

School of Pharmaceutical Sciences, University of Shizuoka, 52-1 Yada, Suruga-ku, Shizuoka, 422-8526,

Japan

SOURCE:

Food and Chemical Toxicology (2006), 44(2), 286-292

CODEN: FCTOD7; ISSN: 0278-6915

PUBLISHER:

Elsevier Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Theanine increases the antitumor effect of doxorubicin (DOX) with decreasing adverse reaction. The authors clarified the mechanism by which theanine decreases the adverse reaction of DOX on any metabolizing enzymes of theanine. There was no change in the activity of any CYPs and the cytochrome P 450 content by theanine treatment. Namely, it was considered that the decrease of DOX adverse reactions by theanine was not connected with CYP activity. In other words, it is shown that theanine has no effect on the metabolism of other medicines and is safe as a food (tea) or supplement. Glutathione Stransferase activity did not change in the theanine-alone group whereas increased in the theanine and DOX-combined group. These results suggested that theanine combination increased the conjugate with DOX and GSH, promoted the efflux of GS-DOX conjugates from the liver, and decreased DOX concentration in the liver. In medium containing theanine with glutaminase in vitro, glutamate gradually generated, showing that glutaminase reacted with theanine. Furthermore, the generation of glutamate increased by reaction of theanine and  $\gamma$ - glutamyltranspeptidase ( $\gamma$ -GTP), showed that  $\gamma$ -GTP converted theanine to glutamate. It is expected that theanine metabolism occurred by hydrolysis and rearrangement reaction by  $\gamma$ -GTP in the liver. Namely, it is suggested that the metabolism of theanine mediated by qlutaminase and  $\gamma$ -GTP and the increase of glutamate mediated GSH is important for theanine-induced action. In conclusion, it appeared that theanine does not change the biodistribution of combined drugs but it modulates biodistribution or damage to the relative site of GSH, and shows preventive effects in tissue.

3081-61-6, Theanine

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(efficacy of theanine in decreasing adverse reactions of antitumor agent doxorubicin is connected with theanine metabolism by any enzyme and not only drug metabolizing enzymes)

RN3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME) Absolute stereochemistry. Rotation (+).

REFERENCE COUNT:

24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1255320 HCAPLUS Full-text

DOCUMENT NUMBER:

144:114364

TITLE:

Manufacture and application of composite

)

panaxatriol-containing preparation

INVENTOR(S):

Yang, Zhaoxiang; Ai, Li

PATENT ASSIGNEE(S):

Kunming Xianggexima Biotechnology Co., Ltd., Peop.

Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 28 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT:

various forms.

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	CN 1608629	A	20050427	CN 2004-10022715	20040603
PRIO	RITY APPLN. INFO.:			CN 2004-10022715	20040603
AB	The title preparat:	ion is o	composed of:	panaxatriol, Ginkgo bi	loba extract
	(Ginkgo biloba fla	vone>24	ł, ginkgolide	e>6%), theanine, and otl	her auxiliary
	agents. This prepa	aration	has effects	in promoting the activ	ity of brain cells
	and brain nerve ce	lls, imp	proving oxyge	en and blood supply of l	brain, and
			_		

treating or relieving diseases caused by cerebral anoxia and cerebral

ischemia. This preparation can be produced into medicines or health food in

L24 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:1129112 HCAPLUS Full-text

DOCUMENT NUMBER:

143:379855

TITLE:

Theanine as a hypnotic and health food for sleep

improvement

INVENTOR(S):

Shirakawa, Shuichiro; Koseki, Makoto; Juneja, Reka

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan; National Neurology and

Psychiatry Center

SOURCE:

Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. APPLICATION NO. KIND DATE -----\_ \_ \_ \_

JP 2005289948 A2 20051020 JP 2004-111727 20040406 PRIORITY APPLN. INFO.: JP 2004-111727 20040406

Theanine is claimed as a hypnotic and health food for sleep improvement and reducing fatigue without side effects. Theanine can be prepared from glutamine and ethylamine and extracted from tea. Formulation examples of tablets and health drinks were given.

L24 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1110851 HCAPLUS Full-text

DOCUMENT NUMBER: 143:320505

TITLE: Effects of theanine on alcohol metabolism and hepatic

toxicity

Sadzuka, Yasuyuki; Inoue, Chieko; Hirooka, Saho; AUTHOR (S):

Sugiyama, Tomomi; Umegaki, Keizo; Sonobe, Takashi School of Pharmaceutical Sciences, University of

CORPORATE SOURCE:

Shizuoka, 52-1 Yada, Shizuoka, 422-8526, Japan

SOURCE: Biological & Pharmaceutical Bulletin (2005), 28(9),

1702-1706

CODEN: BPBLEO; ISSN: 0918-6158 Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

AB . The authors previously showed that theanine, a major amino acid in green tea, enhanced doxorubicin (DOX)-induced antitumor activity. Besides, theanine induced the elevation of glutathione (GSH) level attributable to the increase of glutamate in the liver of mice, namely, theanine would reduce the adverse reaction of DOX. Consequently, theanine was thought to be effective against the tissue changes with GSH level reduction On the other hand, it is suggested excessive uptake of alc. causes a production of free radicals, a decrease of GSH level, and an increase in the amount of lipid peroxide (LPO) in liver, and shifting to an alc. liver injury. Then, aiming at the prevention and medical treatment of an hepatic toxicity by the food components with little toxicity, the authors have studied the effect of theanine (i.p.) on ethanol metabolism and hepatic toxicity using ethanol (orally) singleadministered mice. On the 1st hour after ethanol administration, the ethanol concns. in blood of the theanine -combined groups decreased compared with the ethanol-alone group. The alc. dehydrogenase and aldehyde dehydrogenase activities in the liver increased by combined theanine. Since the elevation of cytochrome P 450 (CYP) 2E1 activity was controlled in the theanine combined groups, it was considered that these disorders attributable to CYP2E1 in ethanol long-term uptake might be avoidable by theanine . Although LPO increased in 3 h by single administration of ethanol, the increase was controlled by theanine administration and was improved until the normal level. Thus, theanine was effective against alc. liver injury.

REFERENCE COUNT: THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS 42 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 2005:961494 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 143:253993

TITLE: Liposomal composition comprising L-theanine

Kellermann, Gottfried INVENTOR(S):

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 6 pp. SOURCE:

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2005191341 A1 20050901 US 2004-790619 20040301

PRIORITY APPLN. INFO.: US 2004-790619 20040301

AB A liposomal encapsulated solution of L-theanine is sprayed onto the sublingual membrane of a subject. The method may be used in the treatment of stress, tension headaches, attention deficit disorder (ADD), attention deficit disorder hyperactivity (ADHD), claustrophobia, hyperactivity, and anxiety.

L24 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:960104 HCAPLUS Full-text

DOCUMENT NUMBER: 143:222550

TITLE: Stress-relaxing and soothing compositions and their

use for pharmaceuticals and foods

INVENTOR(S):
Koseki, Makoto

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2005232045 A2 20050902 JP 2004-41255 20040218
PRIORITY APPLN. INFO.: JP 2004-41255 20040218

AB Title compns., powders, tablets, candies, beverages, and chewing gum contain theanine, herb, GABA, and/or palatinose. Thus, Suntheanine (theanine) at 50 or 200 mg p.o. increased  $\alpha$  wave activity in the brain of volunteers diagnosed with high- and low-anxiety by Manifest Anxiety Scale.

L24 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:692272 HCAPLUS Full-text

DOCUMENT NUMBER: 143:146715

TITLE: Anxiety disorder relieving or eliminating compositions

containing  $\gamma$ -glutamyl-ethylamide (theanine) and

their manufacture

INVENTOR(S): Koseki, Makoto; Okubo, Tsutomu; Juneja, Reka Raju;

Suzuki, Tsutomu

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005206462	A2	20050804	JP 2004-11201	20040119
PRIORITY APPLN. INFO.:			JP 2004-11201	20040119

## 10\_695427

AB The compns., useful for relieving or eliminating symptoms of panic disorder, e.g. palpitation, sweating, breathlessness, chest pain, contain theanine (I). Also claimed are a method for manufacture of the compns. involving a step to compound I. I induces no memory disorders. Thus, i.p. administration of I 2 to mice showed significant antianxiety effect in the light-dark box test. Candies, beverages, etc., containing I were also formulated.

L24 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:651325 HCAPLUS Full-text

DOCUMENT NUMBER: 144:311252

TITLE: Relaxing effect of green tea containing L-

theanine on mental stress

AUTHOR(S): Fukuhara, Takeo; Kojima, Hidetoshi; Kinae, Naohide CORPORATE SOURCE: Beverage Development Research Lab., Sapporo Beverage

Co., Ltd., Japan

SOURCE: Food Style 21 (2005), 9(7), 44-47

CODEN: FSTYFF; ISSN: 1343-9502

PUBLISHER: Shokuhin Kagaku Shinbunsha DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB VA review discussing the effect of L-theanine- supplemented green tea beverage on relieving mental stress in humans studied through measuring saliva cortisol and chromogranin A is provided.

L24 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:606219 HCAPLUS Full-text

DOCUMENT NUMBER: 143:91079

TITLE: Pharmaceuticals for recovery from cerebral fatigue

INVENTOR(S): Kanan, Toshio; Tanaka, Yukitaka; Hoshino, Eiichi;

Ogura, Yoshikazu

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005187344	A2	20050714	JP 2003-427401	20031224
PRIORITY APPLN. INFO.:			JP 2003-427401	20031224

AB The pharmaceuticals containing theanine (I) are useful for recovery from cerebral fatigue caused by high mental activities peculiar to humans.

Recovery in critical flicker frequency after a Kraepelin test was observed in a man by intake of a beverage containing 50 mg I.

IT 3081-61-6, Theanine

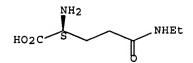
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceuticals containing theanine for recovery from cerebral fatigue)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L24 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:574581 HCAPLUS Full-text

DOCUMENT NUMBER:

143:266124

TITLE:

Effect of theanine, γ-glutamylethylamide, on

bodyweight and fat accumulation in mice

AUTHOR (S):

Zheng, Guodong; Bamba, Kimio; Okubo, Tsutomu; Juneja,

Lekh Raj; Oguni, Itaro; Sayama, Kazutoshi

CORPORATE SOURCE:

United Graduate School of Agricultural Science, Gifu

University, Gifu-shi, Japan

SOURCE:

Animal Science Journal (Tokyo, Japan) (2005), 76(2),

153-157

133-137

CODEN: ASCJFY; ISSN: 1344-3941 Japanese Society of Animal Science

DOCUMENT TYPE:

Journal

LANGUAGE:

PUBLISHER:

English

AB To clarify the details of the anti-obesity effect of theanine, γ-glutamylethylamide, female ICR mice were fed diets containing theanine at the concns. of 0.01, 0.02, 0.04, 0.08 and 0.16% for 16 wk. Bodyweight and food intake in the mice were measured every 4 wk, and several organs and i.p. adipose tissues (IPAT) were weighed after the feeding. In addition, lipid levels in the serum and liver were analyzed. As a result, the bodyweight increase and weight of IPAT were significantly reduced in mice fed 0.04% theanine compared with controls, but not in mice fed other diets. The levels of triglycerides (TG) and non-esterified fatty acids in the serum and TG level in the liver in mice fed the 0.04% theanine diet were remarkably decreased. These results indicated that bodyweight increase and fat accumulation were suppressed by a limited concentration of 0.04% theanine in mice.

REFERENCE COUNT:

21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:927042 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER:

141:384316

TITLE:

Composition containing theanine for slimming

INVENTOR(S):

Kim, Ji Hyun; Ahn, Soo Mi; Lee, Jong Chan; Kim, Young

Kyung; Lee, Byeong Gon; Kim, Sun Young; Park, Ji Eun;

Park, Hyun Woo; Lee, Sang Jun; Kang, Hak Hee

PATENT ASSIGNEE(S):

Amorepacific Corporation, S. Korea

SOURCE:

PCT Int. Appl., 28 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE				APPL:	ICAT:	•	DATE						
WO 2004093865				A1 20041104			WO 2004-KR947					20040423					
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM.	DZ.	EC.	EE.	EG.	ES.	FI.	GB,	GD.

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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
             SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             TD, TG
    KR 2004092538
                                20041104
                         Α
                                            KR 2003-26015
                                                                   20030424
    CN 1777418
                                20060524
                                            CN 2004-80010726
                         Α
                                                                   20040423
    JP 2006524236
                         T2
                                20061026
                                            JP 2006-507818
                                                                   20040423
                                                               A 20030424
PRIORITY APPLN. INFO.:
                                            KR 2003-26015
                                            KR 2003-98859
                                                                Α
                                                                   20031229
                                            WO 2004-KR947
                                                                W
                                                                  20040423
```

AB The present invention relates to a composition for slimming, more . particularly, to a slimming composition containing theanine and at least one selected from the group consisting of caffeine, genistein, L-carnitine and catechin and has properties of decomposing fats, hydrolyzing lipid and removing cellulites.. Compns. containing all 5 effective components showed the most significant effect in decreasing the thickness of s.c. fat in rats.

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2003:147926 HCAPLUS Full-text

DOCUMENT NUMBER:

138:180745

TITLE:

Natural theanine containing compounds and their uses for inhibition of activator protein-1 DNA binding

activity

INVENTOR(S):

Kakuta, Takami; Sugimoto, Akio; Yoneda, Yukio

PATENT ASSIGNEE(S):

Itoen Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055213	A2	20030226	JP 2001-248310	20010817
PRIORITY APPLN. INFO.:			JP 2001-248310	20010817

AB The natural theanine containing compds. were proved to inhibit the DNA binding activity of activator protein-1 (AP1). Especially, the compds. inhibited the DNA binding activity of AP1 to CRE and TRE fragment. The compds. significantly inhibited the DNA binding activity of AP1 in stomach, adrenal gland, hypothalamus and hypophysis. The natural theanine containing compds. can be used for treatment diseases such as cancer, arteriosclerosis, hypertension and diabetes.

L24 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2003:34895 HCAPLUS Full-text

DOCUMENT NUMBER:

138:83397

TITLE:

Epilepsy preventive and remedy medicine

containing theanine derivative

INVENTOR(S):

Unno, Tomonori; Kakuta, Takami; Okamura, Norinobu

PATENT ASSIGNEE(S):

Itoen Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE \_ \_ \_ \_ JP 2003012513 A2 20030115 JP 2002-116010 ` 20020418 A 20010423 JP 2001-124053 PRIORITY APPLN. INFO.:

AB Epilepsy preventive and remedy medicine containing theanine derivative as the active component with less side effect and high efficacy is offered in this invention. L-theanine and D- theanine can be the basic structure for theanine derivative Theanine derivative controls the appearance or the development of abnormal after discharge in the brain of the patients with head injured from trauma or head injury during delivery.

TT 3081-61-6, L-Theanine

> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(epilepsy preventive and remedy medicine containing

theanine derivative)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME).

Absolute stereochemistry. Rotation (+).

L24 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:899282 HCAPLUS Full-text

DOCUMENT NUMBER:

138:362298

TITLE:

AUTHOR (S):

Glutamate transporter mediated increase of antitumor

activity by theanine, an amino acid in green tea Sadzuka, Yasuyuki; Yamashita, Yasuyo; Kishimoto,

Shuichi; Fukushima, Shoji; Takeuchi, Yoshikazu;

Sonobe, Takashi

CORPORATE SOURCE:

University of Shizuoka, Shizuoka, 422-8526, Japan

SOURCE:

Yakugaku Zasshi (2002), 122(11), 995-999

CODEN: YKKZAJ; ISSN: 0031-6903

PUBLISHER:

Pharmaceutical Society of Japan

DOCUMENT TYPE:

Journal

LANGUAGE: Japanese

AB We have confirmed that theanine, a major amino acid in green tea, enhances the antitumor activity of doxorubicin (DOX) without an increase in DOX-induced side effects. We believe that the action of theanine is due to decreases in glutamate uptake via inhibition of the glutamate transporter, intracellular glutathione (GSH) synthesis, GS-DOX conjugate level, and subsequent extracellular transport of GS-DOX by the MRP5/GS-X pump. To increase the clin. usefulness of theanine, we examined its effects on the antitumor activity of cisplatin and irinotecan (CPT-11), which a known to be transported

by the efflux system related to MRP. Cisplatin decreased tumor volume in M5076 tumor-bearing mice. Furthermore, the combination of theanine with cisplatin increased the decrease in tumor volume as compared with the cisplatin-alone group. Tumor volume in the CPT-11-alone group did not show a decrease, but the combination of theanine with CPT-11 significantly reduced tumor volume. The concentration of cisplatin in the tumor was significantly increased by combination with theanine, and thus we assume that it correlated with the enhancement on the antitumor activity of theanine. On the other hand, changes in drug concns. with theanine were not observed in normal tissues, but rather it is indicated that theanine tends to reduce their concns. Therefore theanine enhances the antitumor activity not only of DOX but also of cisplatin or CPT-11.

L24 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:868724 HCAPLUS Full-text

DOCUMENT NUMBER: 137:333183

TITLE: Theanine for improving mental concentration

INVENTOR(S): Ozeki, Makoto; Ueda, Tomoko; Okubo, Tsutomu; Juneja,

Lekh Raj

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

P	ATENT	KIND DATE																
w	0 2002	0897	86						WO 2001-JP7764									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	PH,	PL,	PT,	RO,	
		RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	
		VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM				
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,	
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
J	P 2002	3220	53		A2		2002	1108	J	P 2	001-	1262	66		2	0104	124	
J	P 2002	3709	79		A2		2002	1224	JP 2001-176134					20010611				
C	A 2412	789			AA		2002	1213	C.	A 2	001-2	2412	789		2	0010	907	
E	P 1393	726			A1		2004	0303	E	P 2	001-	9634	98		2	0010	907	
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR							
U	S 2005	0206	27		A1		2005	0127	U	S 2	003-3	3119	72		2	0030	211	
PRIORI	PRIORITY APPLN. INFO.:							J	P 2	001-	1262	66	. 1	A 20	0104	124		
								JP 2001-176134					A 20010611					
									W	0 2	001-0	JP77	64	V	W 20010907			

AB Disclosed are compns. for improving mental concentration characterized by containing theanine; and a method of improving mental concentration by administering theanine to individuals. Theanine is formulated into foods and medicines for oral administration.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:847697 HCAPLUS Full-text

DOCUMENT NUMBER: 137:320329

TITLE: Theanine-containing compositions to concentrate

attention on exercise and their use

INVENTOR(S): Koseki, Makoto; Ueda, Tomoko; Okubo, Tsutomu; Juneja,

Reka Raju

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

· CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

LANGUAGE:

	PATENT NO.				KIND DATE		APPLICATION NO.											
		2002																
	WO	2002	0897	86		A1		2002	1114	1	WO 2	001-	JP77	64		2	0010	907
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KR,	KZ,	ĽC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PH,	PL,	PT,	RO,
			RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,
			VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM	•	•	
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT.	SE,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	•
	CA	2412	789			AA		2002	1213		CA 2	001-	2412	789		2	0010	907
	ĒΡ	1393	726			A1					EP 2001-963498							
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR	·	•	•	•	•	•
	US	2005	•			•	-	•	•	•	•	003-	3119	72		2	0030	211
	IORITY APPLN. INFO.:																	
	MIONIE IN ENT.									001-								
•												001-		•			0010	
					_						···~_		- , ,	· ·	•		· · · · ·	

AB Compns., useful for concentrating attention on exercise, contain theanine . The compns. may be food or pharmaceutical compns. Ingestion of chewables containing theanine by female archery players significantly enhanced attention on the performance. The chewables also suppressed appearance of EEG  $\beta$ -wave during endurance exercise by male volunteers who regularly performe phys. training.

L24 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:181584 HCAPLUS Full-text

DOCUMENT NUMBER: 137:272850

TITLE: Effect of dihydrokainate on the antitumor activity of

doxorubicin

AUTHOR(S): Sadzuka, Yasuyuki; Yamashita, Yasuyo; Sugiyama,

Tomomi; Sonobe, Takashi

CORPORATE SOURCE: University of Shizuoka, School of Pharmaceutical

Sciences, Shizuoka, 422-8526, Japan

SOURCE: Cancer Letters (Shannon, Ireland) (2002), 179(2),

157-163

CODEN: CALEDQ; ISSN: 0304-3835

PUBLISHER: Elsevier Science Ireland Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB For biochem. modulation, components of green tea have been shown to be useful modulators in combination with doxorubicin (DOX). We have confirmed that theanine enhances the antitumor activity of DOX due to inhibition of DOX efflux from tumor cells. Because theanine is a glutamate analog, we found that it is associated with a change in the drug transport system on the tumor cell membrane, in particular glutamate transporters. We examined the effect of dihydrokainate (DHK), one of the useful glutamate transporter inhibitors. DHK also inhibits DOX efflux significantly and reduces the glutamate uptake by Ehrlich ascites carcinoma cells. The potential contribution of glutamate transporters not only to glutamate uptake but also to cell membrane export of DOX has been shown. In addition, the combination of DHK with DOX significantly enhances the antitumor activity of DOX, by 1.8-fold (P<0.001). The DOX concentration in tumors significantly increases on combination with DHK and is correlated with the reduced tumor weight On the other hand, DHK tends to reduce the DOX concentration in normal tissues . We expect that DHK has different actions in tumor and normal tissues because different isoforms of glutamate transporters are expressed in the two tissues. Thus, the results suggest that DHK is a novel and useful modulator for inducing enhancement of antitumor activity.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:155624 HCAPLUS Full-text

DOCUMENT NUMBER: 136:166578

TITLE: Amino acid nutrition and brain functions

AUTHOR(S): Yokogoshi, Hidehiko

CORPORATE SOURCE: Sch. Food Nutr. Sci., Univ. Shizuoka, Japan

SOURCE: Rinsho Eiyo (2002), 100(2), 175-179

CODEN: RNEYAW; ISSN: 0485-1412

PUBLISHER: Ishiyaku Shuppan

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review on the nervous system and neurotransmission, amino acid uptake into brain across the blood brain barrier, amino acid neurotransmitters, effects of dietary proteins on the protein formation and metabolism in brain, effects of dietary carbohydrates and proteins on the neurotransmitter formation in brain, effects of amino acid supplementation on the neurotransmitter formation, effects of nonnutrient amino acids in foods (theanine, etc.) on neurotransmitters, and effects of dietary proteins and amino acids on brain functions (blood pressure control, behavior, memory, learning, etc.).

L24 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2001:365026 HCAPLUS Full-text

DOCUMENT NUMBER: 136:79019

TITLE: Effects of green tea component on brain functions

AUTHOR(S): Ozeki, Makoto

CORPORATE SOURCE: NF Dvi., Taiyo Kagaku Co., Ltd., Japan

SOURCE: Food Style 21 (2001), 5(5), 80-85

CODEN: FSTYFF

PUBLISHER: Shokuhin Kagaku Shinbunsha DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review, discussing the chemical and pharmacol. of green tea components, including amino acids especially theanine, on brain functions and application for treatment of nervous system diseases.

IT 3081-61-6, Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of green tea component on brain functions)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L24 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:579855 HCAPLUS Full-text

DOCUMENT NUMBER:

133:144936

TITLE:

Intraventricular preparations containing theanine to

prevent nerve cell death

INVENTOR(S):

Kakuta, Takami; Nozawa, Ayumi; Umino, Tomonori;

Ushitani, Kimio; Kataoka, Kiyoshi; Yanase, Naoto

PATENT ASSIGNEE(S):

Itoen K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2000229854	A2	20000822	JP 1999-35844	19990215		
PRIORITY APPLN. INFO.:			JP 1999-35844	19990215		

AB Intravascular prepns. which prevent or treat ischemic nerve cell death and vascular dementia contain theanine (I). Also claimed are prepns. containing I administered in brain surgery. I suppressed ischemia-induced death of hippocampal CA1 neurons of gerbil in a dose-dependent manner.

L24 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:184045 HCAPLUS Full-text

DOCUMENT NUMBER:

132:317931

TITLE:

Inhibiting effects of theanine on caffeine stimulation

evaluated by EEG in the rat

AUTHOR (S):

Kakuda, Takami; Nozawa, Ayumu; Unno, Tomonori;

Okamura, Noritaka; Okai, Osamu

CORPORATE SOURCE:

Central Research Institute, Itoen Ltd., Shizuoka,

SOURCE:

421-0516, Japan

Bioscience, Biotechnology, and Biochemistry (2000), 64(2), 287-293

CODEN: BBBIEJ; ISSN: 0916-8451

PUBLISHER:

Japan Society for Bioscience, Biotechnology, and

Agrochemistry

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB In this study, the inhibiting action of theanine on the excitation by caffeine at the concentration regularly associated with drinking tea was investigated using electroencephalog. (EEG) in rats. First, the stimulatory action by caffeine i.v. administration at a level higher than 5 µmol/kg (0.970 mg/kg) b.w. was shown by means of brain wave anal., and this level was suggested as the min. dose of caffeine as a stimulant. Next, the stimulatory effects of caffeine were inhibited by an i.v. administration of theanine at a level higher than 5 µmol/kg (0.781 mg/kg) b.w., and the results suggested that theanine has an antagonistic effect on caffeine's stimulatory action at an almost equivalent molar concentration On the other hand, the excitatory effects were shown in the rat i.v. administered 1 and 2 µmol/kg (0.174 and 0.348 mg/kg) b.w. of theanine alone. These results suggested two effects of theanine, depending on its concentration

REFERENCE COUNT:

20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1998:507106 HCAPLUS Full-text

DOCUMENT NUMBER:

CORPORATE SOURCE:

129:299190

TITLE:

Influences of plant hormones on synthesis of theanine

from Tea callus

AUTHOR(S):

Chen, Ying; Tao, Wenyi

Shaoxing College of Art and Science, Shaoxing, 312000,

Peop. Rep. China

SOURCE:

Wuxi Qinggong Daxue Xuebao (1998), 17(1), 74-77

CODEN: WQDXF3

PUBLISHER:

Wuxi Qinggong Daxue Xuebao Bianjibu

DOCUMENT TYPE: Journal Chinese LANGUAGE:

AΒ Theanine, an amide which enhances the taste of infused green tea, was first found in shoot tips of tea plants. It possesses broad prospects on the development of finished tea products and medicine . Theanine is usually chemical synthesized, but it is expensive. The theanine was produced by cell mass culture to get more theanine at low price. The influences of IAA, IBA, NAA, 2,4-D, 6-BA, zeatin, kinetin and triacontanol on the synthesis of theanine from tea callus were studied. The growth and theanine accumulation of tea callus were investigated under different contents and constitution of hormones. The optimum condition was that MS medium contained 4 mg/L 6- BA and 2 mg/L IAA or 3 mg/L 6-BA, 1.5 mg/L IAA and 2 mg/L TA. The theanine content was increased up to 170 mg/g (dry weight).

L24 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1997:716007 HCAPLUS Full-text

DOCUMENT NUMBER:

127:351189

TITLE:

Glutamate receptor antagonists and their use for

prevention of nerve cell death

INVENTOR (S):

Tsunoda, Takami; Nozawa, Ayumi; Takihara, Takanori;

Sakane, Iwao; Kuroda, Yoichiro

PATENT ASSIGNEE(S):

Itoen K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE APPLICATION NO.

DATE

JP 09286727 A2 19971104 JP 1996-126419 19960423

JP 3808130 B2 20060809

PRIORITY APPLN. INFO.: JP 1996-126419 19960423

AB The title antagonists containing theanine (and its derivs.) as active ingredient(s) are useful for prevention of cerebral infarction, apoplexy, cerebral ischemia, etc. Theanine at 800 µM bound to NMDA receptor of rat cerebral cell to raise intracellular Ca2+ concentration

IT 3081-61-6, Theanine 3081-61-6D,

Theanine, derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(theanines as glutamate receptor antagonists for treatment of brain diseases)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L24 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:180754 HCAPLUS Full-text

DOCUMENT NUMBER:

126:170890

TITLE:

Theanin compositions for soothing and increasing

learning efficiency

INVENTOR(S):

Ito, Kanamichi; Aoi, Nobuyuki; Sugimoto, Sukeo

Taiyo Kagaku Kk, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

': 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09012454	A2	19970114	JP 1995-184923	19950627

PRIORITY APPLN. INFO.:

JP 1995-184923

19950627

AB Brain  $\alpha$  wave-generating and learning efficiency-increasing compns. (e.g. foods, beverages, pharmaceuticals, etc.) contain theanin. An aqueous theanin solution (.apprx.3 mg/kg) enhanced  $\alpha$  wave generation in the brain in volunteers.

IT 3081-61-6P, Theanin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PNU (Preparation, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(theanin compns. for increasing learning efficiency and generating  $\alpha$  wave in brain)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

=> =>	d stat qu	e 138										
L1	549006	SEA FILE=HCAPLUS ABB=ON PLU=ON ("STRESS, BIOLOGICAL"/CV OR "STRESS, ANIMAL"/CV OR "STRESS, ANIMAL (L) MENTAL"/CV OR										
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		OR "EMOTIONAL STRESS (L) MENTAL"/CV OR "MENTAL BIOL. STRESS"/CV										
		OR "MENTAL STRESS"/CV OR "STRESS DISORDER"/CV) OR STRESS										
L2	579424	SEA FILE=HCAPLUS ABB=ON PLU=ON ("CENTRAL NERVOUS SYSTEM"/CV										
		OR BRAIN/CV) OR "NERVOUS SYSTEM (L) BRAIN"/CV OR BRAIN OR										
		CENTRAL (W) NERVOUS										
L3	392411	SEA FILE=HCAPLUS ABB=ON PLU=ON (HORMONE/CV OR "HORMONES,										
		ANIMAL"/CV) OR HORMONE										
L4	44663	SEA FILE=HCAPLUS ABB=ON PLU=ON "HEART RATE"/CV OR HEART (2A) RA										
	•	TE										
L5	204261	SEA FILE=HCAPLUS ABB=ON PLU=ON CIRCULATION/CV OR CIRCULATION										
		OR "BLOOD PRESSURE"/CV OR BLOOD(2A) FLOW										
L6	4	SEA FILE=REGISTRY ABB=ON PLU=ON (THEANIN/CN OR THEANINE/CN										
		OR "THEANINE HYDROCHLORIDE"/CN OR "THEANINE HYDROLASE"/CN OR										
		"THEANINE SYNTHETASE"/CN)										
L7		SEL PLU=ON L6 1- CHEM: 16 TERMS										
L8		SEA FILE=HCAPLUS ABB=ON PLU=ON L7										
L9	669	SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?THEANIN?										
L10	. 97	SEA FILE=HCAPLUS ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5)										
		AND L9										
L12	66	SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND PD= <november 2003<="" 30,="" td=""></november>										
L13	12	SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND ?STRESS?										
L15	. 23	SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND RECOVER?										
L16	22	SEA FILE=HCAPLUS ABB=ON PLU=ON L15 NOT L13										
L17	12	SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND PD= <november 2003<="" 30,="" td=""></november>										
L18	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (?FATIGU? OR STRESS?										

# 10\_695427

		OR TISSUE OR MUSCLE OR BRAIN OR HEART OR ?DERM?)										
L19	. 83	SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)(?DRUG? OR ?PHARM? OR										
		?THERP? OR ?MEDIC? OR ?SUPPLE?)										
L21	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18										
L22	117	SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)(?FATIGU? OR STRESS? OR										
		TISSUE OR MUSCLE OR BRAIN OR HEART OR ?DERM?)										
L23	31	SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L22										
L24	29	SEA FILE=HCAPLUS ABB=ON PLU=ON L23 NOT (L13 OR L21)										
L27	7	SEA FILE=HCAPLUS ABB=ON PLU=ON "GEISS K R"/AU OR "GEISS KURT										
		REINER"/AU										
L28		SEA FILE=HCAPLUS ABB=ON PLU=ON WEISS M?/AU										
L29	182	SEA FILE=HCAPLUS ABB=ON PLU=ON ("YAMAZAKI N"/AU OR "YAMAZAKI										
		NAGAHIRO"/AU)										
L30	126	SEA FILE=HCAPLUS ABB=ON PLU=ON ("JUNEJA L R"/AU OR "JUNEJA										
		LECH RAJ"/AU OR "JUNEJA LEK R"/AU OR "JUNEJA LEKA RAJ"/AU OR										
		"JUNEJA LEKH"/AU OR "JUNEJA LEKH R"/AU OR "JUNEJA LEKH RAI"/AU										
		OR "JUNEJA LEKH RAJ"/AU OR "JUNEJA LEKH RAJA"/AU)										
L31	136	SEA FILE=HCAPLUS ABB=ON PLU=ON "OZEKI M"/AU OR "OZEKI										
		MAKOTO"/AU										
L32	1	SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L28 AND L29 AND L30										
		AND L31										
L33	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND (L28 OR L29 OR L30 OR										
		L31)										
L34	1	SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (L29 OR L30 OR L31)										
L35	7	SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND (L30 OR L31)										
L36	9	SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND L31										
L37	32	SEA FILE=HCAPLUS ABB=ON PLU=ON (L27 OR L28 OR L29 OR L30 OR										
		L31) AND L9										
L38		OFF THE MARRIED AND ON THE ON A TABLE OF THE OFF THE										
77.0	29	SEA FILE=HCAPLUS ABB=ON PLU=ON (L32 OR L33 OR L34 OR L35 OR										

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L38 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2006:887566 HCAPLUS Full-text

DOCUMENT NUMBER: 145:256237

TITLE: Tablet composition containing amino acid and process

for producing tablet

INVENTOR (S): Ozeki, Makoto; Aoi, Nobuyuki PATENT ASSIGNEE(S): Taiyokagaku Co., Ltd., Japan SOURCE:

PCT Int. Appl., 31pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.		KIND DATE			APPLICATION NO.						DATE				
WO 2006090640			A1 20060831			WO 2006-JP302797						20060217			
W:	AE, A	AG, AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
	CN, C	co, cr,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	ĜD,
	GE, G	GH, GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
	KZ, L	LC, LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
	MZ, N	NA, NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
	SG, S	SK, SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,
	VN, Y	U, ZA,	ZM,	ZW											

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

JP 2005-46542 A 20050223

AB It is intended to provide a tablet which comprises as an active ingredient an amino acid passing through the blood-brain barrier and has few damages caused by tableting. The tablet preferably contains an amino acid in a proportion of 1% by mass to 40% by mass in which 10% or less of the amino acid has a particle size of 80 µm or more. In this case, it is preferred that a tablet is produced by coating granules obtained by granulating a particle mixture containing the amino acid with a coating liquid containing a binder component to produce coated granules, and tableting the coated granules. For example, theanine powders, lactose, guar gum degradation product (Sunfiber), crystalline cellulose, maltose syrup, silica, and an aqueous ethanolic solution were mixed, kneaded, and granulated. The granules were spray-coated with a solution of shellac, blended with a sucrose ester and tableted.

IT 3081-61-6P, L-Theanine

RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(coated amino acid granules for tableting)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

AUTHOR(S):

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:410876 HCAPLUS Full-text

TITLE: Factors that affect the body's nervous system:

relaxation effects of tea L-theanine Ozeki, M.; Rao, T. P.; Juneja, L. R.

CORPORATE SOURCE: Nutritional Foods Division, Taiyo Kagaku Co. Ltd.,

Yokkaichi, Japan

SOURCE: Nutraceutical Science and Technology (2006),

4 (Nutraceutical Proteins and Peptides in Health and

Disease), 377-390 CODEN: NSTUAI

PUBLISHER: CRC Press LLC

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review discusses the psychol. and physiol. relaxation effects of Suntheanine. Suntheanine induces strong  $\alpha$  -waves in the brain, which clearly indicates its psychol. relaxation effects in humans. Suntheanine has also been found to alleviate the symptoms of PMS and reduce caffeine-induced excitation as well as blood pressure in hyperactivity by suppressing the central nervous system. Suntheanine is safe, and no dietary limits have been

imposed in Japan. Based on various studies, Suntheanine has been widely recommended for various food applications, which target relaxation. SUntheanine.

REFERENCE COUNT:

18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER:

2006:140533 HCAPLUS Full-text

DOCUMENT NUMBER:

145:137620

TITLE:

Effects of theanine, r-glutamylethylamide,

on neurotransmitter release and its relationship with

glutamic acid neurotransmission

AUTHOR (S):

Yamada, Takashi; Terashima, Takehiko; Okubo, Tsutomu;

Juneja, Lekh Raj; Yokogoshi, Hidehiko

CORPORATE SOURCE:

Laboratory of Nutritional Biochemistry, COE Program in

the 21 Century and Cooperation of Innovative

Technology and Advanced Research in Evolutional Area, Ministry of Education, Culture, Sports, Science and Technology of Japan, SportsUniversity of Shizuoka,

52-1 Yada, Shizuoka, Japan

SOURCE:

Nutritional Neuroscience (2005), 8(4), 219-226

CODEN: NNINFE; ISSN: 1028-415X

PUBLISHER:

Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Theanine, r-glutamylethylamide, is one of the major amino acid components in green tea and many researchers have compared theanine's effects with glutamic acid because the chemical structure is similar. In the previous study, we demonstrated that theanine can pass brain-blood barrier and may play as an agonist or an antagonist of some receptors. In this study, we investigated the effects of theanine on neurotransmitter release in the rat brain striatum by in vivo brain microdialysis and examined whether theanine affected glutamate transporters by comparing it with a glutamate transporter blocker, L-trans-Pyrrolidine-2,4-dicarboxylic acid (L-trans-2,4-PDC). Because we investigated whether the effects of theanine is similar to L-trans-2,4-PDC on the brain neurotransmission, we measured dopamine release and some amino acids release which are known as excitatory or inhibitory neurotransmitters from neurons by theanine or L-trans-2,4-PDC perfusion into the rat brain striatum. L-trans-2,4-PDC or theanine perfusion into the brain striatum caused dopamine release from dopaminergic neurons. In addition, L-trans-2,4-PDC perfusion increased glutamic acid, aspartic acid and, whereas theanine perfusion prevented aspartic acid release and increased glycine release. These results suggested that the mechanism of dopamine release caused by theanine is different from glutamate transporter blockers or glutamic acid. Further, Ltrans-2,4-PDC cause excitatory neurotransmission, whereas theanine may inhibit excitatory neurotransmission and cause inhibitory neurotransmission via glycine receptors.

3081-61-6, Theanine IT

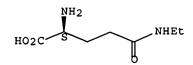
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(theanine caused dopamine and glycine release from dopaminergic neurons while it prevented aspartic acid release in rat brain striatum)

3081-61-6 HCAPLUS RN

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2006:31062 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 144:487883

TITLE: Improvement of sleep quality by L-

theanine

AUTHOR(S): Ozeki, Makoto

CORPORATE SOURCE: Dep. of Bio-Nutrition, Taiyo Kagaku Co., Ltd., Japan

SOURCE: Shokuhin to Kagaku (2005), 47(12), 73-78

CODEN: SHTKAY; ISSN: 0037-4105

PUBLISHER: Shokuhin to Kagakusha

DOCUMENT TYPE: Journal LANGUAGE: Japanese

AB L-Theanine were administered to healthy male subjects (200 mg) at 1 h before sleeping, and the sleep qualities were studied by Wilcoxon matched-pairs signed-ranks test and actigraph anal. The results showed lower rate of awakening and nightmare during sleeping in the theanine group, suggesting the effect of L- theanine on improving sleep quality.

IT 3081-61-6, Suntheanine

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)

(improvement of sleep quality by L-theanine)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2006:15837 HCAPLUS Full-text

DOCUMENT NUMBER: 144:106698

Enzymic manufacture of theanine

INVENTOR(S): Okada, Yukitaka; Ozeki, Makoto; Aoi,

Nobuyuki

PATENT ASSIGNEE(S): Taiyokagaku Co., Ltd., Japan

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

TITLE:

PAT	ENT 1	NO.			KIN	D :	DATE		i	APPL	ICAT:	ION I	NO.		D	ATE		
						-									-			
WO 2	WO 2006001296				A1 20060105			1	WO,2005-JP11420						20050622			
	<b>W</b> :	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	·CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,	
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	
		NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	
		SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,	VN,	ΥU,	
		ZA,	ZM,	ZW		•												
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΗU,	ΙE,	
		IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	
		CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	GM,	
		ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	
		ΚZ,	MD,	RŲ,	TJ,	TM												
CORITY	APPI	LN.	INFO	. :	•				·	JP 20	004-3	18904	18	2	A ,20	0040	528	

PRIC

JP 2004-376443 A 20041227

Theanine is manufactured com. with glutaminase of Bacillus, fungi and/or yeast AB from L-glutamine and Et amine or derivs. The product comprises theanine and L-glutamine at a ratio of ≥5. The glutaminase may be immobilized for the preparation of theanine. Obtaining glutaminase of Bacillus subtilis, and enzymic manufacture of theanine with the enzyme were shown.

3081-61-6P, Theanine

RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(enzymic manufacture of theanine with glutaminase of Bacillus)

3081-61-6 HCAPLUS RN

L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1220808 HCAPLUS Full-text

DOCUMENT NUMBER:

143:432703

TITLE:

Alcohol metabolism accelerating composition, and food

or drink containing the composition

INVENTOR(S):

Okubo, Tsutomu; Ozeki, Makoto; Sadzuka,

Yasuyuki; Juneja, Lekh Raj

PATENT ASSIGNEE(S):

Taiyokagaku Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2005107734
                          A1
                                20051117
                                            WO 2005-JP8283
                                                                    20050502
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
             SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
             ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                            JP 2004-136960
                                                               A 20040506
     An alc. metabolism accelerating composition that exhibits little side effects
     and thus can be ingested at ease; and a food or drink containing the
     composition There is provided a composition comprising theanine, and provided
     a food or drink comprising the composition The theanine can rapidly lower the
     alc. concentration in blood to thereby alleviate or remedy disorders caused by
     alc. intake (for example, hangover and alc. liver injury).
     3081-61-6P, Theanine
     RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
     PREP (Preparation); USES (Uses)
        (alc. metabolism accelerating composition containing theanine, and food or
        drink containing the composition)
     3081-61-6 HCAPLUS
RN
     L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)
Absolute stereochemistry. Rotation (+).
       NH<sub>2</sub>
REFERENCE COUNT:
                         2
                               THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L38 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2005:1123750 HCAPLUS Full-text
DOCUMENT NUMBER:
                         143:373399
TITLE:
                         Sleep-improving compositions containing
                         theanine
INVENTOR(S):
                         Ozeki, Makoto; Yao, Haruo; Okubo, Tsutomu;
                         Juneja, Lekh Raj
PATENT ASSIGNEE(S):
                         Taiyokagaku Co., Ltd., Japan
                         PCT Int. Appl., 37 pp.
SOURCE:
                         CODEN: PIXXD2
                         Patent
DOCUMENT TYPE:
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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APPLICATION NO.

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DATE

KIND

\_\_\_\_

DATE

PATENT NO.

WO 2005097101 20051020 WO 2005-JP6468 A1 20050401 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

JP 2004-111726 A 20040406

AB Disclosed is a sleep-improving composition containing theanine and other ingredients, that everyone can use on a daily basis without the danger of side effects. There is provided a sleep-improving composition characterized by containing theanine and at least one ingredient selected from the group consisting of chamomile, lavender, St. John's wort, Kava, valerian, passion flower, tryptophan, γ-aminobutyric acid, serotonin, melatonin, and cedrol.

IT 3081-61-6P, Theanine

RL: FFD (Food or feed use); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(sleep-improving compns. containing theanine and other actives)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:994142 HCAPLUS Full-text

ACCESSION NUMBER: DOCUMENT NUMBER:

143:254060

TITLE:

Compositions comprising theanine for treating or preventing mood disorders

INVENTOR(S):

Ozeki, Makoto; Juneja, Lekh Raj;

Okubo, Tsutomu

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

Can. Pat. Appl., 35 pp.

CODEN: CPXXEB

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE		
CA 2459240	AA	20050827	CA 2004-2459240	20040227
PRIORITY APPLN. INFO.:			CA 2004-2459240	20040227

AB A pharmaceutical composition for treating or preventing mood disorders, as well as a food or beverage for ameliorating or preventing mood disorders comprising theanine are provided. The pharmaceutical composition and the food and beverage are safe and have a significant suppressive effect on the depression in a mood disorder. For example, tablets were prepared by mixing frosted sugar 71.67%, trehalose 10%, L-theanine 13.33%, sucrose fatty acid ester 1%, and lemon flavor 4%, the mixture was granulated and compressed into a tablet of 0.75 g. The therapeutic effects of theanine tablets (200 mg theanine as one tablet twice a day) were demonstrated in patients with mood disorders with no side effects.

IT 3081-61-6P, Theanine

RL: FFD (Food or feed use); NPO (Natural product occurrence); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(Suntheanine; preparation and compns. of theanine for treating or preventing mood disorders)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:369129 HCAPLUS Full-text

DOCUMENT NUMBER:

142:404299

TITLE:

Method of treating extreme physical or mental stress

using L-theanine to obtain accelerated regeneration

INVENTOR(S):

Geiss, Kurt-Reiner; Weiss, Michael
; Yamazaki, Nagahiro; Juneja, Lekh

Raj; Ozeki, Makoto

PATENT ASSIGNEE(S):

Germany

SOURCE:

U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005090512	A1	20050428	US 2003-695427	20031028
PRIORITY APPLN. INFO.:			US 2003-695427	20031028

AB The invention discloses a method for using L-Theanine for acceleration of regeneration after stressing. A quantity of at least 50 mg of L-Theanine is administered after phys. or mental stressing. For example, L-Theanine can be administered in the form of a foodstuff, such as a functional food with l-Theanine additive, or in the form of a complete drink.

IT 3081-61-6, L-Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(L-theanine for treatment of extreme phys. or

mental stress)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:633406 HCAPLUS Full-text

DOCUMENT NUMBER:

141:156342

TITLE:

Compositions containing coenzyme Q10

INVENTOR(S):

Yamaguchi, Rumi; Yamaguchi, Hiroaki; Fujii, Kenji;

Nanbu, Hironobu; Juneja, Lekh Raj;

Yamazaki, Nagahiro

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

						IND DATE APPLICATION NO.											
						<b>-</b> .								'-	-		
WC	2004	0645	43		A1	;	2004	0805	WO	20	04-	JP2:1	6		2	0040	115
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA, B	В,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM, D	Ż,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN, I	s,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG, M	Κ,	MN,	MW,	MX,	MZ,	NA		
									JP								
JI	2005	0000	43		A2	:	2005	0106	JP	20	03-:	16569	90		2	0030	610
ΑU	J 2004	2061	44		A1	:	2004	0805	AU	20	04-2	20614	44		2	0040	115
CA	2513	276			AA	:	2004	0805	CA	20	04-2	25132	276		2	0040	115
EI	1591	.020			A1	:	2005	1102	EP	20	04-	7024	42		2	0040	115
	R:	ΑT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB, G	R∙,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY, A	L,	TR,	BG,	CZ,	EE,	HU,	SK	•
CN	1 1738	3548			Α	:	2006	0222	CN	20	04-8	80002	2331		2	0040	115
US	2006	1340	85		A1	:	2006	0622	US	20	05-	54220	03		2	0050	714
PRIORIT	Y API	LN.	INFO	. :					JP	20	03-	9013			A 2	0030	117
									JP	20	03-	16569	90		A 2	0030	610
									. WO	20	04-0	JP216	6	1	W 2	0040	115

AB A composition containing coenzyme Q10 and a hydrophilic polyhydric alc./fatty acid ester, and (2) food and beverages containing the mixture of coenzyme Q10-hydrophobic polyhydric alc./fatty acid ester are claimed. The alc. fatty acid esters are monoglycerin and/or polyglycerin fatty acid esters.

REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

12

ACCESSION NUMBER:

2004:547843 HCAPLUS Full-text

DOCUMENT NUMBER:

141:94324

TITLE:

NMDA receptor antagonist containing

γ-glutamyl-ethylamide

INVENTOR (S):

Suzuki, Tsutomu; Koseki, Makoto; Juneja, Reka Raju;

Yamazaki, Nagahiro

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	DATE	
JP 2004189626	A2	20040708	JP 2002-356518	20021209
PRIORITY APPLN. INFO.:			JP 2002-356518	20021209

AB The invention provides a NMDA receptor antagonist characterized by containing γ-glutamyl-ethylamide as an active component, suitable for use in food and pharmaceutical compns. Y-Glutamyl-ethylamide was prepared from glutamine and ethylamine hydrochloride by treatment with glutaminase. A tablet containing  $\gamma$ glutamyl-ethylamide 13.33, trehalose 10, sucrose fatty acid ester 1, lemon flavor 4, and frost sugar balance to 100 % was formulated.

IT 3081-61-6P

> RL: BPN (Biosynthetic preparation); FFD (Food or feed use); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(NMDA receptor antagonist containing \gamma-glutamyl-ethylamide)

3081-61-6 HCAPLUS RN

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:528651 HCAPLUS Full-text

DOCUMENT NUMBER:

141:276819

TITLE:

Antioxidant capacity of human plasma and serum as affected by a single dose of a beverage rich in antioxidants - use of three different assay systems

AUTHOR (S):

Boehm, Volker; Netzel, Michael; Kler, Adolf; Marx,

Stefan; Weiss, Michael; Geiss,

Kurt-Reiner

CORPORATE SOURCE:

Institute of Nutrition, Friedrich-Schiller-University

Jena, Jena, 07743, Germany

SOURCE:

Journal of Food, Agriculture & Environment (2004),

2(1), 74-78

CODEN: JFAEAC; ISSN: 1459-0255

PUBLISHER: World Food RD Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

As single 500-mL dose of polyphenols in mixed fruit juice beverage did not much increase the contents of total phenols in blood plasma or serum of 5 healthy men. The plasma or serum antioxidant capacity was measured by the FRAP (ferric reducing antioxidant power), TRAP (total radical-trapping antioxidant parameter), and photochemiluminescence methods. The beverage enhanced the antioxidant capacity in plasma (FRAP) and serum (FRAP, TRAP), reaching the peak values at different times (30-60 min). The photochemiluminescence test system, a very sensitive assay in recent studies, did not show any change in the antioxidant capacity in plasma or serum. Thus, the sample type and test system seem to be factors affecting the measured values of antioxidant capacity in human intervention studies. The use of at least 2 different assays is strongly recommended.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2004:254108 HCAPLUS Full-text

DOCUMENT NUMBER: 141:254294

TITLE: Anti-obesity effects of three major components of

green tea, catechins, caffeine and theanine,

in mice

AUTHOR(S): Zheng, Guodong; Sayama, Kazutoshi; Okubo, Tsutomu;

Juneja, Lekh Raj; Oguni, Itaro

CORPORATE SOURCE: Department of Applied Biological Chemistry, Faculty of

Agriculture, Shizuoka University, Shizuoka, 422-8529,

Japan

SOURCE: In Vivo (2004), 18(1), 55-62

CODEN: IVIVE4; ISSN: 0258-851X

PUBLISHER: International Institute of Anticancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

AB To elucidate the anti-obesity effects of three major components of green tea, catechins, caffeine and theanine, female ICR mice were fed on diets containing 2% green tea powder and diets containing 0.3% catechins, 0.05% caffeine and 0.03% theanine, which correspond, resp., to their concns. in a 2% green tea powder diet, singly and in combination for 16 wk. Body weight and food intake were determined monthly during this period, kidneys, adrenals, liver, spleen, brain, pituitary and i.p. adipose tissues (IPAT) were weighed and lipid levels in the serum and liver were measured at the end of this period. The body weight increase and weight of IPAT were significantly reduced by the diets containing green tea, caffeine, theanine, caffeine + catechins, caffeine + theanine and caffeine + catechins + theanine. Noticeably, the IPAT weight decreased by 76.8% in the caffeine + catechins compared to the control group. Serum concns. of triglycerides (TG) and non-esterified fatty acids (NEFA) were decreased by green tea, catechins and theanine. Moreover, caffeine + catechins, caffeine + theanine and caffeine + catechins + theanine also decreased NEFA in the serum. The TG level in the liver was significantly reduced by catechins and catechins + theanine in comparison with the control. These results indicated that at least caffeine and theanine were responsible for the suppressive effect of green tea powder (GTP) on body weight increase and fat accumulation. Moreover, it was shown that catechins and caffeine were synergistic in anti-obesity activities.

IT 3081-61-6, Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(theanine alone or in combination with catechin, caffeine reduced increase in body weight, fat accumulation and serum concentration of TG,

NEFA in mouse)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:162824 HCAPLUS Full-text

DOCUMENT NUMBER:

140:162458

TITLE:

Theanine manufacture with Pseudomonas

citronellolis

INVENTOR (S):

Tachiki, Takashi; Okada, Yukitaka; Ozeki,

Makoto; Okubo, Tsutomu; Juneja, Lekh Raj

; Yamazaki, Nagahiro

PATENT ASSIGNEE(S):

Taiyokagaku Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 14 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	rent 1	NO.			KIN	D -	DATE		•		ICAT:			· .	D	ATE	
WO	2004	0167	98		A1		2004	0226	1						. 2	0030	122
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA',	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	KΕ,	KG,	ΚP,	KR,	KZ,	LC,	ĹK,	LR,	LS,
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	ŪĠ,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
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		KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
JP	2004	0651	05		A2		2004	0304		JP 2	002-2	2290:	26		2	0020	306
CA	2494	854			AA		2004	0226	(	CA 2	003-2	2494	854		2	00304	122
AU	2003	22745	51		A1		2004	0303		AU 2	003-2	2274	51		2	00304	122
EP	1544	306			<b>A1</b>		2005	0622	]	EP 2	003-'	7176	31		2	00304	122
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
CN	1688	705			Α		2005	1026	(	CN 2	003-8	3213	00		20	00304	122
US	2006	10543	37		<b>A1</b>		2006	0518	1	US 20	005-9	5230	98		20	0051	025
PRIORITY	APP	LN.	INFO	. :		•				JP 20	002-2	2290	26	1	A 20	020	306
									Ţ	WO 2	003-0	JP50'	77	1	W 20	00304	122

# 10\_695427

AB The theanine, the green tea aroma, is com. manufactured from glutamine and Et amine at pH 9-12 and temperature 10-55° with glutaminase-producing P. citronellolis which possesses  $\gamma$ -glutamyl transfer activity. citronellolis is isolated from a soil sample.

3081-61-6P, Theanine IT

> RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(theanine com. manufacture with glutaminase-producing Pseudomonas citronellolis)

3081-61-6 HCAPLUS RN

L-Glutamine, N-ethyl- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2006 ACS on STN L38 ANSWER 15 OF 29 2003:165035 HCAPLUS Full-text

ACCESSION NUMBER: DOCUMENT NUMBER:

138:169209

TITLE: Theanine for control of mood disorders

INVENTOR(S): Koseki, Makoto; Okubo, Tsutomu; Juneja, Reka Raju;

Yamazaki, Nagahiro

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan SOURCE:

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
					-	
	JP 2003063958	A2	20030305	JP 2001-253740		20010824
	US 2004171624	A1	20040902	US 2004-790730		20040303
PRIO	RITY APPLN. INFO.:			JP 2001-253740	Α	20010824
AB	Theanine (I) prepar	ed from	n tea extract	or by enzymic prepa	rat	cion from
	glutamine and ethyl	lamine k	y glutaminas	se is used to prepare	: he	ealth food for
	control of mood dis	orders.	Preparation	on of I-containing ca	ndi	les for control of
	mood disorders was	shown.	Unlike tric	yclic antidepressant	an	nitriptyline
	hydrochloride, I do	es not	have side-ef	fects such as drowsy	ar	nd constipation.
IT	3081-61-6, Theanine					•
		ed use)	; THU (Thera	peutic use); BIOL (B	iol	ogical
	atudar), Here (Hees)					

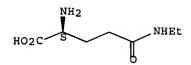
study); USES (Uses)

(Theanine for control of mood disorders)

RN 3081-61-6 HCAPLUS

L-Glutamine, N-ethyl- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L38 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

. 2003:147925 HCAPLUS Full-text

DOCUMENT NUMBER:

138:147743

TITLE:

Theanine as a remedy and health food for

treatment of menstruation disorders

INVENTOR (S):

Yokogoshi, Hidehiko; Umeda, Chinaru; Shinbo, Mari; Suzuki, Chie; Ueda, Tomoko; Koseki, Makoto; Yao,

Haruo; Okubo, Tsutomu; Juneja, Leka Raj

PATENT ASSIGNEE(S):

SOURCE:

Taiyo Kagaku Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055212	A2	20030226	JP 2001-242934	20010809
PRIORITY APPLN. INFO.:			JP 2001-242934	20010809

AB Theanine is claimed as a remedy and health food for treatment of menstruation disorders. Formulation examples of tablets and health drinks were given.

IT 3081-61-6, Theanine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(theanine as a remedy and health food for treatment of menstruation disorders)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:955397 HCAPLUS Full-text

DOCUMENT NUMBER:

138:11435

TITLE:

Theanine for treatment of attention-deficit

hyperactivity disorder

INVENTOR(S):

Ueda, Tomoko; Koseki, Makoto; Okubo, Tsutomu;

Juneja, Leka Raj

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

KIND

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

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--------------------20010606 A2 20021218 JP 2001-171342

APPLICATION NO.

JP 2002363074 WO 2002100393 A1 20021219 WO 2001-JP7763

DATE

20010907

DATE

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, . GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO,

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,

VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2417837 AA 20030129 CA 2001-2417837 20010907 EP 1393725 A1 20040303 EP 2001-963497 20010907

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2006004026

A1 20060105 US 2003-343931

20030205 A 20010606

PRIORITY APPLN. INFO.:

JP 2001-171342 WO 2001-JP7763

W 20010907

Theanine is claimed as remedy or health food for treatment of attention-AΒ deficit hyperactivity disorder. Theanine tablets were formulated and tested in patients with attention-deficit hyperactivity disorder.

IT 3081-61-6, Theanine

> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(theanine for treatment of attention-deficit hyperactivity disorder)

3081-61-6 HCAPLUS RN

L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry. Rotation (+).

L38 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:286679 HCAPLUS Full-text

DOCUMENT NUMBER:

INVENTOR(S):

136:299750

TITLE:

Oral medications for controlling odor of feces

Koseki, Makoto; Juneja, Lekh Raj;

Yamazaki, Nagahiro

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 8 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

#### PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002114690	A2	20020416	JP 2000-311412	20001012
PRIORITY APPLN. INFO.:			JP 2000-311412	20001012

AB A medication applicable to humans and domestic animals contains ≥ 1 microorganism selected from the group consisting of Lactobacillus, Streptococcus, Leuconostoc, and Bifidobacterium, in addition to a tea extract, a galactomannan degradation product or guar gum enzymic degradation product, and a polyglycerin fatty acid ester.

L38 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2002:227143 HCAPLUS Full-text

DOCUMENT NUMBER: 137:231508

TITLE: Relaxation effect of theanine in green tea

component

AUTHOR (S): Ozeki, Makoto

CORPORATE SOURCE: Department of NF Business, Taiyo Chemical Co., Ltd.,

Japan

SOURCE: Food Style 21 (2002), 6(3), 70-76

CODEN: FSTYFF

PUBLISHER: Shokuhin Kagaku Shinbunsha DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AΒ A review on the tasty component, theanine, of green tea.

IT 3081-61-6, Theanine

> .RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (relaxation and tasteful effect of theanine in green tea component)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

ACCESSION NUMBER:

L38 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

2002:89827

DOCUMENT NUMBER: 136:139854

TITLE: Compositions containing theanine for

regulating desire for smoking

INVENTOR(S): Okubo, Tsutomu; Ozeki, Makoto; Inden,

Takehiko; Juneja, Lekh Raj; Hisanabe,

HCAPLUS Full-text

Masahiko; Okayama, Kenichi

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan; Otsuka Chemical Co.,

Ltd.

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PA	rent :	NO.			KIN	D	DATE								D	ATE	
WO	2002	0077	23		A1	-	2002	0131			 2001-				2	0010	718
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	вв	, BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC	, EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG	, KR,	KZ,	LÇ,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX	, MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR	, TT,	TZ,	UA,	UG,	US,	UZ,	VN,
		YU,	ZA,	ZW											•		
	RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ	, TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT	, LU,	MC,	NL,	PT,	SE,	TR,	BF,
											, ML,						
	2002						2002	0402		JP :	2001-	3446	0		2	0010	209
	3730						2006										
	2385										2001-						
. AU	2002	0245	25		A5		2002	0205		AU :	2002-	2452	5		2	0010	718
EP	1319	401			A1		2003	0618		EP :	2001-	9843	01		2	0010	718
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR						
	2003						2003	0102	•	US :	2002-	8858	7		2	0020	321
US	7094	787			B2		2006	0822									
PRIORITY	APP:	LN.	INFO	.:					1	JP :	2000-	2203	01		A 2	0000	721
											2001-					0010	209
									1	WO:	2001-	JP62	02	1	W 2	0010	718

AB It is intended to provide highly safe and non-anaclitic compns. for regulating desire for smoking which enable: (1) regulation of desire for smoking in nonsmoking situations in daily life; (2) intentional stop or reduction of smoking; and (3) complete breaking away from smoking habit. It is also intended to provide a method of stopping or reducing smoking by administering theanine-containing compns. to individuals. A chewable tablet containing L-theanine (Suntheanine) 13.33, trehalose 10, sucrose fatty acid ester 1, fragrance 4, and frost sugar q.s. to 100 % was formulated, and tested its effect on regulation of smoking desire in volunteer smokers.

IT 3081-61-6P, SunTheanine

RL: BPN (Biosynthetic preparation); FFD (Food or feed use); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(theanine compns. for regulating desire for smoking)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:872963 HCAPLUS Full-text

DOCUMENT NUMBER:

136:5072

TITLE:

Improvement of digestive calcium absorption by

non-ionic surfactants

INVENTOR(S):

Yao, Haruo; Sakaguchi, Noboru; Juneja, Lekh

Raj; Yamazaki, Nagahiro

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001333736	A2	20011204	JP 2000-160146	20000530
PRIORITY APPLN. INFO.:			JP 2000-160146	20000530

AB A non-ionic surfactant composition and enzymic casein hydrolyzate that improves calcium absorption contains ≥ 1 compound selected from the group consisting of glycerin fatty acid esters, polyglycerin fatty acid esters, sucrose fatty acid esters, propylene glycol esters, and sorbitan fatty acid esters. This composition given with food improves absorption of calcium from digestive tract.

L38 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:823312 HCAPLUS <u>Full-text</u> 135:339255

DOCUMENT NUMBER: TITLE:

Theanine as a drug and health food for

improving blood circulation

INVENTOR(S):

Koseki, Makoto; Okubo, Tsutomu; Shu, Seiji; Ogasawara,

Yutaka; Juneja, Lekh Raj; Yamazaki,

Nagahiro

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001316256	A2	20011113	JP 2000-131636	20000428
PRIORITY APPLN. INFO.:			JP 2000-131636	20000428

AB Theanine is claimed as a drug and health food for improving blood circulation and is useful for treatment of related cardiovascular diseases, including Raynaud syndrome. Examples of drinks and candies were given.

IT 3081-61-6, Theanine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(theanine as a drug and health food for improving blood circulation)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 200

2001:747601 HCAPLUS Full-text

DOCUMENT NUMBER:

135:278057

TITLE:

Compositions for promoting sleep

INVENTOR(S):

Ozeki, Makoto; Yao, Haruo; Okubo, Tsutomu;

Juneja, Lekh Raj

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PA'	rent :	NO.			KIND DATE						D.	DATE							
	WO 2001074352								WO 2001-JP2916						20010404					
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,		
			HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,		
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,		
			SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VN,		
			YU,	ZA,	ZW															
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZW,	AT,	ΒE,	CH,	CY,		
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,		
			ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG				
	CA 2404387			AA 20011011				(	CA 2	001-	2404		20010404							
	EP 1277468			A1 20030122			EP 2001-921790						20010404							
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LĮ,	LU,	NL,	SE,	MC,	PT,		
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR								
	US 2002188025					A1	A1 20021212				US 2001-980620						20011205			
PRIORITY APPLN. INFO.:					. :					,	JP 2	000-	1029	1	A 20000405					
										1	WO 2	001-	JP29	16	1	W 2	0010	404		
3.70		7 -				_				-										

AB Disclosed are compns. for promoting sleep containing theanine which can be peacefully taken by everyone everyday without any fear of side effects; foods and drugs containing these compns. and having an effect of promoting sleep which are to be administered to individuals with sleep disorder; a method of promoting sleep by administering theanine to individuals with sleep disorder; and use of theanine in producing foods or drugs which are to be administered to individuals with sleep disorder.

IT 3081-61-6P, Theanine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(theanine for promoting sleep)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT: THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN 2001:139929 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 135:32918

TITLE: Characteristics and food uses of L-

theanine

AUTHOR (S): Okubo, Tsutomu; Juneja, Lekh Raj

Taiyo Kagaku Co., Ltd., Japan CORPORATE SOURCE:

SOURCE: Japan Fudo Saiensu (2001), 40(1), 33-36

CODEN: JAFSAA; ISSN: 0368-1122

PUBLISHER: Nippon Shokuhin Shuppan K.K.

DOCUMENT TYPE: Journal LANGUAGE: Japanese

AB The safety, stability, and physiol. effects of L- theanine, found in green tea, are discussed. Ingestion of candy (2 pieces, each containing 36 mg Ltheanine/4 g) caused relaxation, as indicated by increased generation of  $\alpha$ waves in the brain. L-Theanine was also a flavor enhancer and, when added at 0.002-0.2%, suppressed the bitterness of foods such as grapefruit and beer.

3081-61-6, L-Theanine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PRP (Properties); BIOL (Biological study); USES (Uses)

(characteristics, physiol. effects, and food uses of)

RN3081-61-6 HCAPLUS

IT

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

AUTHOR (S):

L38 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:306134 HCAPLUS Full-text

DOCUMENT NUMBER: 132:333493

TITLE: A unique amino acid of green tea, L-

> theanine, and its relaxation effect in humans Chu, Djong Chi; Okubo, Tsutomu; Ueda, Tomoko;

Juneja, Lekh Raj

CORPORATE SOURCE: Nutr. Foods Div., Taiyo Kagaku Co., Ltd., Yokkaichi,

510-0844, Japan

SOURCE: Fragrance Journal (2000), 28(4), 74-80

CODEN: FUJAD7; ISSN: 0288-9803

PUBLISHER: DOCUMENT TYPE: Fureguransu Janaru Sha Journal; General Review

LANGUAGE:

Japanese

AB A review with 22 refs. about L-theanine, unique amino acid found almost solely in tea plants. Physiol. function and relaxation effects of L-theanine and its application to food are discussed.

3081-61-6, L-Theanine IT

> RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(L-theanine as tea ingredients and its relaxation

effect in humans)

3081-61-6 HCAPLUS RN

L-Glutamine, N-ethyl- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:549146 HCAPLUS Full-text

DOCUMENT NUMBER:

131:149342

TITLE:

Composition comprising theanine

INVENTOR (S):

Ueda, Tomoko; Nagato, Yukiko; Tanaka, Yukiko; Okubo,

Tsutomu; Kobayashi, Kanari; Aoi, Nobuyuki; Shu, Seiji;

Juneja, Lekh Raj

PATENT ASSIGNEE(S):

Taiyo Kagaku Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA.	CENT :	NO.			KIND		DATE		APPLICATION NO.						DATE			
WO 9942096					A1		19990826			WO 1999-JP784					19990223			
	W:	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	·BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
		DK,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	
		KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	
		NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	
		UA,	UG,	US,	UZ,	VN,	ΥU,	ZW										
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,	
		FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	
		CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG	•						
JP 2001089365				A2 20010403				JP 1:	998-	19980223								
JP	P 2001089364				A2 20010403					JP 1	998-	19980508						
JP	P 2000053568				A2	A2 20000222			,	JP 1	998-2	19980806						
JP	P 2000143508			A2 20000523			JP 1998-330207						19981105					
CA	A 2320368			AA 19990826			1	CA 1	999-2	19990223								
AU	9925	488			A1	•	1999	0906		AU 1	999-:	2548	3		1:	9990	223	

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,	PT.
R. AI, DE, CH, DE, DR, ED, FR, GD, GR, II, DI, DO, ND, DE, MC,	_,
IE, FI	
JP 2000247878 A2 20000912 JP 1999-235538 199908	23
US 6831103 B1 20041214 US 2000-655336 200009	05
US 2001001307 A1 20010517 US 2001-757586 200101	11
US 6589566 B2 20030708	
PRIORITY APPLN. INFO.: JP 1998-57470 A 199802	23
JP 1998-142119 A 199805	80
JP 1998-234968 A 199808	06
JP 1998-330207 A 199811	05
WO 1999-JP784 W 199902	23 ·
US 1999-403486 A3 199910	22
US 2000-655336 A3 200009	05

AΒ The invention relates to a composition comprising theanine which is used for depression and amelioration of the symptom caused by degradation of homeostatic function, and a mineral composition comprising theanine and a mineral. A composition which can be used for depressing and ameliorating the above-mentioned symptom and a mineral composition which is reduced in a taste peculiar to a metal and can be administrated with ease.

IT 3081-61-6, Theanine

> RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(composition comprising theanine for depression and amelioration of symptom caused by degradation of homeostatic function)

3081-61-6 HCAPLUS RN

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 2 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1998:98721 HCAPLUS Full-text

DOCUMENT NUMBER:

128:140064

TITLE:

Effects of L-theanine on the

release of  $\alpha$ -brain waves in human volunteers

AUTHOR (S):

Kobayashi, Kanari; Nagato, Yukiko; Aoi, Nobuyuki;

Juneja, Lekh Raj; Kim, Mujo; Yamamoto,

Takehiko; Sugimoto, Sukeo

CORPORATE SOURCE:

Taiyo Kagaku Co., Ltd., Yokkaichi, 510, Japan

Nippon Nogei Kagaku Kaishi (1998), 72(2), 153-157

CODEN: NNKKAA; ISSN: 0002-1407

PUBLISHER:

SOURCE:

Nippon Nogei Kagakkai

DOCUMENT TYPE:

Journal

LANGUAGE: Japanese

L-Theanine is an amino acid found in green tea leaf and in its infusion, and is known to control excitement caused by caffeine. It is also known that the oral administration of L- theanine to rats results in a decrease of serotonin and increase of catecholamines in their brain. L-Theanine has been confirmed to be safe in animal expts. We found recently that oral intake of L-theanine caused a feeling of relaxation among the human volunteers examined These observations led us to do expts. on the effects of administration of L-theanine on the brain elec. waves. Eight female university students were selected as volunteers. Four of them were ranked to be Grade I (the highest anxiety) and the remaining 4, Grade V (the lowest anxiety) in an investigation done by the manifest anxiety scale method. A dose of oral administration of 200 mg of L-theanine dissolved in 100 mL of water resulted in the generation of  $\alpha\text{-elec}$ . waves in the occipital and parietal regions of the brains of the subjects. The emission intensity of  $\alpha\text{-brain}$  waves (integrated as a function of investigation times and area) was significantly greater in the group of Grade I than that of Grade V. These results indicate the possibility for L-theanine to be applied to foods and beverages as a new type of functional food ingredient for its relaxation effect.

IT 3081-61-6, L-Theanine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(effects of L-theanine on release of  $\alpha$ -brain waves in humans)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:622503 HCAPLUS Full-text

DOCUMENT NUMBER: 127:275341

TITLE: Theanine - its synthesis, isolation, and

physiological activity

AUTHOR(S): Chu, D. - C.; Kobayashi, K.; Juneja, L. R.;

Yamamoto, T.

CORPORATE SOURCE: International Division, Taiyo Kagaku Co., Ltd., Japan

SOURCE: Chemistry and Applications of Green Tea (1997),

129-135. Editor(s): Yamamoto, Takehiko. CRC: Boca

Raton, Fla. CODEN: 65BJA7

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review with 22 refs. on the presence of theanine in the tea plant, its enzymic synthesis and some of its physiol. activities.

IT 3081-61-6P, Theanine

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR

(Purification or recovery); BIOL (Biological study); PREP (Preparation) (synthesis and isolation and physiol. activity of theanine

from tea plant)

RN 3081-61-6 HCAPLUS

CN L-Glutamine, N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L38 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:158504 HCAPLUS Full-text

TITLE:

Suppressive effect of uremic toxin formation by green

tea polyphenols.

AUTHOR (S):

Ninomiya, M.; Sakanaka, S.; Juneja, L. R.;

Kim, M.; Yamazaki, N.; Ito, Y.; Yokozawa, T.

CORPORATE SOURCE:

Central research Laboratories, Taiyo Kagaku Co., Ltd,

Mie, 510, Japan

SOURCE:

Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), AGFD-171. American

Chemical Society: Washington, D. C.

CODEN: 64AOAA

DOCUMENT TYPE:

Conference; Meeting Abstract

LANGUAGE:

English

AB The patients with renal failure are generally subjected to a high oxidative stress. We previously reported the decrease of kidney functions by the accumulation of uremic toxin (uremia) due to oxidative stress. Methylguanidine (MG), a uremic toxin, is derived from creatinine (Cr) by the action of hydroxyl radicals. In this study, we investigated the effect of green tea polyphenols on the serum MG and MG/Cr levels in human volunteers. Two doses of 200 mg green tea polypenols (SUNPHENONR) in a jelly form were given to 50 patients receiving chronic hemodialysis daily for six months. The serum MG and Cr levels were determined using a liquid chromatograph with a stepgradient system. In 6 mo after the administration of green tea polyphenols, the mean content of MG was about 70% of that at the beginning of the treatment. The MG/Cr ratio, 4.12 10-3 at the baseline, decreased significantly to 3.86 + 10-3 at 2 mo and suppressive effect continued throughout the administration period. Therefore, green tea polyphenols could be explored as a potential material for suppression of uremic toxin.